

West Chester University



GRADUATE CATALOG

1983 • 1985

Communications Directory

MAILING ADDRESS:	West Chester University, West Chester, Pa. 19383
TELEPHONES:	Dial 436 plus number in parentheses. For offices not shown here, call the University Switchboard: 436-1000. Area Code: 215.
Academic Advising	Director for Academic Advising, Learning and Research Center (3505)
Academic Development Program	Director of Academic Development Program, FHG Library—(2600)
Admissions/Catalogs	Director of Admissions, 110 West Rosedale Avenue (3411)
Affirmative Action	Director of Affirmative Action (2433)
Book Store	Intracollegiate Governmental Association, Sykes Union Building (2242)
Careers/Placement	Director of Career Development Center, Lawrence Center (2501)
Continuing Education	Director, Lifelong Learning, Learning and Research Center (2833) Coordinator, Evening Division, Learning and Research Center (2811)
Counseling	Counseling Center, Lawrence Center (2301)
Cultural Affairs and University Events	Program Board, Sykes Union Building (2983)
Financial Aid/ Work Study	Director of Financial Aid to Students, Learning and Research Center (2627)
Graduate Studies/ Catalogs	Dean of Graduate Studies, Learning and Research Center (2943)
Housing	Student Development Office, Sykes Union Building (3305)
IGA Business Office	Intracollegiate Governmental Association, Sykes Union Building (2955)
Police	Department of Public Safety, Peoples Maintenance Building (3311)
Public Relations	Director of Public Relations, Philips Memorial (3383)
Scheduling/Registration	University Registrar, Learning and Research Center (3541)
Student Accounts	Student Accounts Office, Learning and Research Center (2552)
Summer Sessions	Director of Summer Sessions, Learning and Research Center (2230)

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GRADUATE CATALOG

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West Chester University of Pennsylvania of the State System of Higher Education is accredited by the Middle States Association of Colleges and Secondary Schools, the National Council for Accreditation of Teacher Education, the American Association for Health, Physical Education, and Recreation, the National Association of Schools of Music, the Council on Social Work Education, the American Chemical Society, and the National League for Nursing. West Chester University of Pennsylvania is a member of the Northeastern Association of Graduate Schools and the United States Council of Graduate Schools.

This bulletin is not to be regarded as an irrevocable contract between the student and West Chester University of Pennsylvania. West Chester University reserves the right to change any provisions or requirements at any time.

The university reserves the right to cancel a course at any time if its enrollment is inadequate.

Non-Discrimination Policy

West Chester University of Pennsylvania complies with all applicable Federal and State discrimination statutes. Education programs, activities, and employment at the college are provided without regard to marital status, race, color, national origin, sex, sexual orientation, age, or religious creed. In addition, the university attempts to remove any barriers and to provide opportunity for education and employment of handicapped persons. Inquiries regarding compliance with this policy may be directed to the Director of Affirmative Action, West Chester University, West Chester, Pa. 19383.

OFFICE OF GRADUATE STUDIES

Hours: 8:00 a.m. to 6:00 p.m. Monday through Thursday when the university is in session. On Friday and all days when the university is not in session, hours are 8:00 a.m. to 4:30 p.m. Hours during summer sessions are 8:00 a.m. to 4:00 p.m.

Room 140, Learning Research Center

High Street and Rosedale Avenue

West Chester, Pa. 19383

Telephone: area code 215-436-2943

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GRADUATE PROGRAMS

OF STUDY

CERTIFICATION AND/OR MASTER OF EDUCATION

Biology
Counseling
 Elementary School Counseling
 Secondary School Counseling
Elementary Education
English
French
German
Health
 Gerontology
 Public Health
 School Health
Health and Physical Education
Instructional Media
Latin
Mathematics
Reading
Secondary Education
Social Science
 History
Spanish
Special Education

MASTER OF ARTS

Biology
English
French
Geography
History
Mathematics
 Applied Computer Science
 Mathematics Education
 Pure Mathematics
Music History
Physical Science
 Chemistry
 General
 Geology and Astronomy
 Physics
Psychology
 Clinical
 General

Industrial/Organizational
Social Science
 History
 Political Science
 Psychology
Spanish
Speech Pathology
Teaching English as a Second Language

MASTER OF MUSIC

Music Education
Music Theory
Music Composition
Performance
 Accompanying
 Instrumental
 Keyboard
 Piano Pedagogy
 Vocal

MASTER OF SCIENCE

Administration
 Health
 Leadership for Women
 Psychology
 Public Administration
 Social Work
 Sport and Athletic Administration
 Urban and Regional Planning
Chemistry
 Clinical
 General
Computer Science
Counseling
 Higher Education Counseling
Criminal Justice
Educational Research
Health
 Environmental
 Gerontology
 Public Health
 School Health
Health and Physical Education
Instructional Media

* At West Chester University, the Master's Degree is required for those seeking certification in counselor education.

GRADUATE STUDIES

AT

WEST CHESTER

Objectives: West Chester is committed to broadening the scholarship of the graduate student and the professional skills of the educator while arousing all students to the challenge of research.

THE GRADUATE STUDIES PROGRAM at West Chester has grown remarkably since its introduction in 1959. About 1,200 students now attend during the fall and spring semesters; some 2,500 enroll for its summer sessions. West Chester University's graduate program is the largest within the 14 Commonwealth-owned institutions of higher learning.

The university began as the West Chester Academy in 1812 and functioned as a normal school from 1871-1927. Since it became a four-year college in 1927, West Chester has developed steadily and is now one of the major comprehensive institutions of higher learning in the vicinity of Philadelphia.

Facilities for graduate education are excellent due to the Commonwealth's building program begun in the 1950's and finished in the 1970's. Examples are the Schmucker Science Center, a block-long complex of buildings including a planetarium, astronomical observatory, television studio, and modern laboratories; Elsie O. Bull Learning and Research Center; and the Francis Harvey Green Library, one of Pennsylvania's principal university libraries.

The university offers the Master of Arts, the Master of Education, the Master of Music, and the Master of Science degrees in nearly seventy disciplines or areas of study.

Many of the new master's degree programs such as the M.A. in speech pathology, the M.S. in administration, the computer science option in the M.A. in mathematics, and the certificate of advanced graduate study in reading have been designed to meet the particular needs of the times and the area.

Along with its degree and certification programs, West Chester offers non-degree study in a number of areas including art, economics, linguistics, speech communication, theatre arts, special education, and urban education.

For the benefit of in-service teachers and employed persons, West Chester schedules many of its graduate classes during late afternoons and evenings.

Graduate Summer Sessions The 12-week summer sessions are divided into three periods: the Pre Session of three weeks, the Regular Session of six weeks, and the Post Session of three weeks. Most Pre Session classes meet in the evenings; almost all classes for the other two sessions meet during the daytime. (To apply, see Admission.) Admission to summer sessions courses does not constitute admission to a degree program.

The Campus The university occupies 385 acres in the beautiful rolling countryside of Chester County. The main campus occupies 94 acres within the Borough of West Chester; the south campus is located on a 291-acre tract in adjacent townships.

The Borough of West Chester has been the seat of government in Chester County since 1786. The town was settled in the early eighteenth century principally by members of the Society of Friends. With a population of about 20,000, the borough is small enough to have the pleasant aspects of a tree-shaded American town, large enough to provide essential services and the substance of a vigorous community, and old enough to give the student first-hand touch with America's early history. The heart of West Chester is its courthouse, a Classical Revival building designed in the 1840's by Thomas U. Walter, one of the architects for the Capitol in Washington, D.C.

West Chester today is part of the rapidly growing suburban complex surrounding Philadelphia and offers interesting opportunities for the study of local, county, and regional government in a period of change and growth.

Philadelphia is 25 miles to the east and Wilmington 15 miles to the south of the campus. Thus the libraries, museums, and other cultural and historical resources of both cities are within easy reach. Valley Forge, the Brandywine Battlefield, Longwood Gardens, and other historical attractions are near West Chester.

How to Reach West Chester The Borough of West Chester is easily accessible from all directions both by car and public transportation. Route 3, the West Chester Pike, leads directly into town from center-city Philadelphia. From the Pennsylvania Turnpike, motorists traveling west should take Route 202 south from the Valley Forge Interchange while those traveling east can arrive via Route 100 south from the Downingtown Interchange. From the south, Route 202 from Wilmington and Routes 100 and 52 from U.S. Route 1 all lead to West Chester.

Undergraduate Studies Some 6,800 full-time and nearly 1,800 part-time students are enrolled in the university's undergraduate program. The university grants the Bachelor of Science in Education in four basic curricula—elementary education, secondary education, music education, and in speech pathology and audiology; the Bachelor of Arts in arts and letters, social and behavioral science, the natural sciences, mathematics, and music; the Bachelor of Science in chemistry, and the Bachelor of Music.

Degree programs which prepare students for specialized work in business administration, computer and information sciences, criminal justice, nursing, social welfare, and speech pathology and audiology are offered.

The Admissions Office will supply an undergraduate catalog upon request.

ADMISSION

It is the responsibility of the students to know and observe all regulations and procedures for their programs and to read this catalog thoroughly. The university will not waive a regulation because a student pleads ignorance of it. A student planning to graduate should give careful attention to the dates relating to application for graduation and to other pertinent deadlines announced by the department or the Office of Graduate Studies.

Students with a bachelor's degree from an accredited college or university in the United States or with equivalent preparation acquired in another country are eligible to apply for admission as **degree** or **non-degree** students. **Non-degree** students include those seeking certification, professional growth, or strengthened backgrounds for various professional and industrial occupations.

1. Applications are available from the Office of Graduate Studies and when completed should be returned there.
2. Applicants applying as degree students must request all institutions at which they have taken any post-secondary work to submit two official transcripts directly to the Office of Graduate Studies. West Chester University undergraduate transcripts are available to the Office of Graduate Studies and need not be forwarded by the applicant.
3. Applicants who have unusual problems or questions are advised to request an interview with the dean of graduate studies.

Student Responsibility

The Application Procedure

Degree candidates should apply at least two months before registration for the semester or summer session in which they wish to enroll.

Application Deadline

Applicants will be notified by the dean of graduate studies of the acceptance or rejection of their applications.

Notification of Admission

Those who have been accepted as graduate students will receive registration instructions by mail prior to each semester and the summer sessions.

Registration

1. A baccalaureate degree from a college or university accredited in the United States or its equivalent from a school in another country.
2. A cumulative average of at least 2.50 and a grade of at least 2.75 in the area of concentration. (A equals 4.)
3. Scores from the Graduate Record Examination or the Miller Analogies Test if these are required for admission to the program in which the student wishes to enroll.
4. Approval by the department offering the desired degree program. Before such approval is given, an interview with a faculty

Admission Requirements for Degree Students

member may be required. The applicant must also meet any other additional requirements established for the degree program.

5. Approval by the dean of graduate studies.

6. Space available in the department.

An applicant who has academic deficiencies may be granted provisional status. The department chairperson or school coordinator will specify course work which must be taken to remove such deficiencies and which will not be credited to degree requirements.

Admission to degree study does not constitute admission to degree candidacy. After a student has satisfactorily fulfilled certain course requirements specified in the degree program and has completed 12 to 15 semester hours of work, the student applies for admission to degree candidacy.

Admission Requirements for Non-Degree Students

1. A baccalaureate degree from a college or university accredited in the United States or its equivalent from a school in another country.
2. A cumulative average of 2.0 (A equals 4).
3. A properly completed application form.
4. An interview with a faculty member if special questions arise during the evaluation of the application.

Admission is dependent upon the availability of space in the desired department or program of study.

Those admitted as non-degree students may include applicants who fail to qualify as degree students. There is no assurance that courses taken under non-degree status may be used later to satisfy degree requirements.

Undergraduates

An undergraduate who is in the final semester of work for the bachelor's degree and has an overall grade point average of at least 3.0 may, with the permission of the dean of graduate studies, enroll in up to six credits of graduate-level courses. Credits earned may be applied to a master's degree program.

Auditors

An auditor is a student who attends classes but who does not necessarily do other work required of studies in the course. The auditor need not meet normal admission requirements but must obtain approval to audit from the department chairperson or program coordinator and the course professor. Auditors pay the regular basic fee and must file the usual formal application for admission to the college. The student cannot receive credit for courses taken as an auditor.

Transfer of Credit

Applicants to a degree program at West Chester who have earned credits through previous graduate study at another college or university may transfer credit under certain circumstances.

1. The credits must have been earned at an approved graduate school.
2. The courses taken must be approved by the department in which the applicant intends to enroll at West Chester.
3. No more than six credits may be transferred.
4. The grade earned for courses to be transferred must be B or better (A equals 4).
5. Two official transcripts must be submitted. These must be sent directly to the Office of Graduate Studies by the institution which granted the credits, and they must clearly indicate that the courses to be transferred are graduate courses which were given graduate credit.
6. The courses for transfer must have been taken recently enough to fall within the six-year time limitation.
7. Application forms for transfer of credit may be obtained in the Office of Graduate Studies.

Students from foreign countries may be admitted to the graduate program provided they meet certain special requirements. Foreign students, like other out-of-state students, are accepted only when space is available.

All applications and supporting documents must be on file in the Office of Graduate Studies no less than four months before the student proposes to enter the country.

The Office of Graduate Studies must receive evidence of satisfactory performance on the Test of English as a Foreign Language (normally a score of 550 is expected) unless English is the applicant's native language before application forms can be processed. Information about the TOEFL test, including test dates and locations in foreign countries, can be obtained from the Educational Testing Service, Box 899, Princeton, N.J. 08540, U.S.A. Registration forms must reach Princeton at least five weeks before the test is to be taken.

The following information and documents must be presented:

1. A completed application form.
2. An official copy of the school certificates, showing the date issued, for all work done beyond the elementary level.
3. A statement from a bank or other financial institution certifying ample financial resources to maintain oneself while a student in the United States.
4. A U.S. Immigration (I-20) Form.

After the application and supporting documents have been reviewed, the Office of Graduate Studies will notify the applicant of its action. Foreign students are urged to remain in their own countries until they receive notice of acceptance. The university cannot assume responsibility for their housing or welfare. Once a foreign student has been admitted, university authorities will make every

Admission of Foreign Students

reasonable effort to find suitable housing, but—except during summer sessions—West Chester does not provide dormitory accommodations for graduate students.

DEGREE CANDIDACY

AND DEGREE

REQUIREMENTS

Application for degree candidacy normally should be made within the first 12 to 15 semester hours of the pre-candidacy period.

During the pre-candidacy period the student must:

1. Complete those courses which the department or program specifies as prerequisite to degree candidacy.
2. Perform satisfactorily on examinations which the department or program may require for admission to degree candidacy.
3. Maintain an overall average of at least 2.75 and an average of at least 3.00 in the concentration.

Requirements
for Admission to
Degree Candidacy

1. The student must file an application for admission to degree candidacy with the dean of graduate studies and pay the \$20 application fee. Forms are available in the Office of Graduate Studies.
2. When the application has been evaluated by the department concerned, the dean of graduate studies will send a letter of acceptance or rejection to the student.
3. Upon notice of acceptance, degree candidates must confer with their advisors to establish a program of study.

Procedure for
Application to
Degree Candidacy

Applicants who fail to qualify as degree candidates may reapply. They must attain an average of 3.00 in course work specified by their advisor.

Reapplication for
Degree Candidacy

The record of a student whose grade point average falls below 3.0 in his major field and 2.75 over all after acceptance to degree candidacy will be reviewed by the department advisor. If, after 24 hours of work in a degree program, the student's grade point average is still below a 3.0 in the major field and 2.75 over all, the student will be dropped from the program. An appeal for readmission may be made to the dean of graduate studies.

Retention in a
Degree Program

1. Admission to degree candidacy.
2. Completion of all required courses with a cumulative average of 2.75, an average of 3.00 in the field of specialization, and achievement of satisfactory scores on the Graduate Record Examination, if required, or the Miller Analogies Test, if required. (See program requirements.)

Summary of
Requirements for
the Master's
Degree

3. Satisfactory performance on a final written and/or oral comprehensive examination conducted by the student's advisory committee in the field of specialization. (It is the responsibility of the candidate to apply for this examination.)
4. Submission and approval of the thesis or research report in those programs requiring it.
5. Fulfillment of any special examinations, requirements, or competencies which are peculiar to a department.
6. Fulfillment of all financial obligations to the university, including payment of the graduation fee, and of all other obligations including the return of university property.
7. Compliance with all academic requests from the dean of graduate studies, including submission of a letter of intent to graduate by the specified due date.

**Additional
Requirements for
the Master of
Education Degree**

In addition to fulfilling these requirements, candidates for certain of the Master of Education degrees must give evidence of successful teaching experience approved by the department chairperson. Other experiences in lieu of this requirement must be approved by the dean of graduate studies.

FEES AND EXPENSES

Special Note: The fees listed below reflect charges at press time. For up-to-date information on fees at any given time, contact the Student Accounts Office, (215) 436-2552.

Fees and expenses are subject to change without notice.

Unless otherwise specified, fees are paid by Visa, Master Charge or check or money order made payable to West Chester University. The cancelled check or money order record serves as a receipt.

Less than 9 credits	\$82.00 per semester hour of credit
9 through 15 credits	\$740.00 per semester
More than 15 credits	\$740.00 plus \$82.00 for each semester hour of credit beyond 15

**Basic Fee
In-State and
Out-of-State**

The \$20.00 Application Fee, made payable to West Chester University, should be sent directly to the Financial Management Division.

**Application to
Degree
Candidacy Fee**

A fee of \$25.00 is paid at the Student Accounts Office at the time the examination is scheduled.

**Credit by
Examination**

A late registration fee of \$25.00 is required of students scheduling and paying after the official registration deadline.

**Late
Registration Fee**

Students pay a community center fee based on the number of credits carried, as follows:

**Community
Center Fee**

1 through 6 credits	\$ 2.50 per semester
7 through 8 credits	\$ 5.00 per semester
9 credits or more	\$10.00 per semester

The community center fee is not refundable.

Students who audit a course (attend a course without taking credit) pay the same fees as other students.

Course Audit Fee

Students are expected to make full payment of fees by the registration deadline in advance of each semester. The university sends bills for fees preceding each semester. If payment is not made within the stipulated period, the student incurs a late fee.

**Financial
Obligations**

Payments normally fall due each academic year as follows:

Fall semester	Early in July
Spring semester	Early in December

Any change in these dates will be shown on Fall or Spring invoices. Checks should be made payable to West Chester University and mailed to:

Student Accounts Office
Learning and Research Center
West Chester University
West Chester, PA 19383

No student will be enrolled, graduated, or given a transcript of his or her record until all charges due at the particular time are paid.

**Billing Address
Changes**

If a student's billing address changes during enrollment at the university, the new address must be given to the Student Accounts Office in the Learning and Research Center to avoid delayed delivery of registration materials and grades.

**Dishonored
Check Fee**

A fee of \$25.00 is charged to accounts where a stop-payment order has been entered for a check sent in payment and for checks returned marked "Insufficient Funds." An additional late registration fee is also applicable.

Transcript Fee

\$2.00 per copy. After graduation, the first copy of the transcript will be sent without charge. Graduated students pay the fee for all copies made thereafter. Transcript request forms are available in the Office of Graduate Studies.

Music Fees

In addition to the basic fee, graduate students in music are billed according to the following fee schedule:

Piano, Organ, Instrument, or Voice—	
one half-hour lesson each week	\$55 per semester
Instrument Class or Ensemble—2 hours per week	\$35 per semester

Rentals

Any band or orchestra instrument	\$6.00 per semester
	\$1.00 per week in summer sessions
Organ	(\$12.00 per semester) \$2.00 per week in summer sessions

**Withdrawal
Procedure**

Students who wish to withdraw from the university after paying their semester or summer session fees must follow the official withdrawal procedure. Withdrawal forms are available in the Registrar's Office, Learning Research Center. Completed forms must be returned to that office during the semester or summer session when the withdrawal occurs.

Refund Policy

All refund requests must be made during the semester or session for which the refund is requested. Forms, which are available in the

Registrar's Office, Learning Research Center, should be completed and returned to that office.

Basic Fee Refunds

First through Second Week: Full-time students who completely withdraw forfeit \$100.00.

Part-time students who withdraw completely and students who drop courses receive an 80% refund.

Third Week: All students—70% refund of basic fees.

Fourth Week: All students—60% refund of basic fees.

Fifth Week: All students—50% of basic fees.

After Fifth Week: No refund of basic fees.

The community center fee is non-refundable.

Refunds will not be made to students who are suspended or who are dismissed or who drop courses without the approval of the dean of graduate studies.

There is no refund for full-time students dropping to part-time status after the semester begins.

PLEASE REFER TO THE SUMMER GRADUATE CATALOG FOR SUMMER SESSION FEES AND POLICIES.

Graduation Fee

A graduation fee of \$30.00 is required of all degree candidates. No degree will be granted until this fee is paid. Checks should be drawn to Commencement Fund and delivered to the Office of Graduate Studies on or before the due date.

Parking Fee

The university collects a parking fee of \$2.00 per year from students eligible to utilize on-campus parking facilities. For details, consult the automobile regulations which accompany the fall semester student bills.

Library Card I.D. Card

In order to borrow books from the library, graduate students must present identification, either a library card or an I.D. (identification) card. The fee for either card is \$2.00. The I.D. card is purchased at the IGA Office, Sykes Union Building, the library card at the library.

Fees for Crossover Registration

Students who are admitted to graduate study (degree or non-degree) and are taking undergraduate courses or a combination of undergraduate and graduate courses are to schedule, register, and be billed for all such courses and combinations as graduate students and pay graduate course fees. Further, all such courses or combinations are to appear on a single graduate transcript which should include a code or legend which differentiates between undergraduate and graduate courses. Undergraduate courses appearing on a graduate transcript may or may not be acceptable for a degree program according to determinations made by the degree-granting department.

EXCEPTION: Graduate students who schedule and register for a full load (12 to 18 credits) of exclusively undergraduate courses are to be scheduled, registered, and billed as undergraduate students at undergraduate course fees.

Undergraduate students who elect to take graduate courses in their final semester in accordance with university policy will be billed at the undergraduate rate provided their course load falls within normal limits of eighteen hours. Credit earned and grades received will be recorded on the undergraduate transcript. These credits so earned may later be applied to a graduate program subject to approval of the major department.

Undergraduate students who wish to begin graduate work *and* establish a graduate transcript must pay fees appropriate for graduate study for those courses to be applied toward a graduate degree.

FINANCIAL AID

The National Direct Student Loan Program is a cooperative effort of the federal government and West Chester University which enables qualified students to secure educational loans under attractive conditions. Each borrower must:

1. Be enrolled or accepted in the institution participating in the program.
2. Carry at least $\frac{1}{2}$ the normal full-time workload as determined by the institution.
3. Demonstrate financial need.
4. Maintain satisfactory academic progress in the curriculum.

The combined total of undergraduate and graduate loans cannot exceed \$12,000. Approval of loans depends upon the student's financial need and the availability of loan funds. A Pennsylvania State Grant and Federal Student Aid Application must be filed. For further information contact the director of financial aid.

National Direct Student Loan Program

This loan is a cooperative effort of private lending institutions and the state and federal governments which enables qualified students to secure long-term educational loans.

To be eligible for a loan, a student must:

1. Be accepted for enrollment in an approved institution or, if enrolled, be making satisfactory academic progress.
2. Be classified as at least a half-time student.

The maximum loan per academic grade level for full-time graduate students is \$5,000 or the cost of education, whichever is less. The total indebtedness permissible for all years of undergraduate and graduate study is \$25,000. Applications are secured at lending institutions (banks).

Guaranteed Student Loan

A number of graduate assistantships are available to qualified graduate students. Interested students are advised to consult the department chairperson to determine the availability of assistantships and the candidate's eligibility for assignments. Assignments may involve part-time undergraduate teaching, participation in research projects, or other professional duties under faculty supervision.

Graduate assistants are paid at the base rate of \$2,705 for the academic year, and course fees are waived.

Graduate Assistantships

One \$300.00 scholarship is awarded to a graduate student in physical education. Applications should be submitted to the chairperson, Physical Education Department.

Physical Education Department Scholarship

**Professor
Russell
Sturzebecker
Scholarship**

The Professor Russell Sturzebecker Scholarship is a \$100 award made each semester to a "worthy and needy" graduate student in health and physical education. Through the kind generosity of Mr. John Unruh, the award is donated in honor of Professor Sturzebecker.

The recipient must be working full-time in the field of health and physical education and must be a part-time student at West Chester University working towards a master's degree in his or her professional field.

Graduate students who meet the above criteria are invited to submit a letter of application for the scholarship along with a resume of their professional and academic status. These documents should be submitted to Dr. Norman Cochran, Assistant Chairman of the Department of Physical Education, Room 206, South Campus, before November 15 for the first semester, and before March 15 for the second semester. Selections will be made by a committee of three graduate faculty members of the Department of Health and the Department of Physical Education.

Application forms can be secured in the office of Dr. Norman Cochran.

**Grace Cochran
Research on
Women Award**

An annual \$100 award in each division, graduate and undergraduate, is made for the best research on women. The award, sponsored by the Institute for Women, is given on Research on Women Day held in April of each year. Dr. Cochran, an eminent teacher and scholar, graduated from the West Chester State Normal School in 1906.

**Graduate
Resident
Directors**

Opportunities to serve as graduate resident directors are open to married and single graduate students. Directors live in the university residence halls and provide direction for the personal, social, and educational development of the resident students. These positions are full-time graduate assistantships which offer a stipend, free tuition, and room and board. Preference is given to students enrolled in a counseling or psychology program and to those with residence hall living experience. Applications can be made through the Office of Residence Life, Room 206, Sykes Union Building (Telephone 436-3305).

ACADEMIC

INFORMATION AND

REGULATIONS

The student's degree program must be completed within six years immediately prior to expected date of graduation. In cases of unusual circumstances, a request for an extension of time may be made through the appropriate department for recommendation and consideration by the dean of graduate studies.

See also Degree Candidacy and Degree Requirements.

Students are classified as:

Classification
of Students

A. Degree Students

1. *Full matriculation*—granted to a student who meets all admission requirements.
2. *Provisional matriculation*—may be granted to a student who:
 - a. Has not taken the Graduate Record Examination, the Miller Analogies Test, or a specialized entrance examination required by the department concerned.
 - b. Is unable to present all prerequisites required by the department.
 - c. Has certain other academic deficiencies.
 - d. Fails to meet the academic average required for a degree student.

B. Non-Degree Students

1. *Certification*—applies to students taking course work to gain teacher certification.
2. *Professional growth*—students who take graduate course work but seek neither a degree nor certification.

All students will be assigned an advisor in the department of their choice. Students are expected to take the initiative in scheduling interviews with the advisors during their course of study.

Advisory System

- | | |
|------------|--|
| 500 Series | Graduate level courses to which advanced undergraduates may be admitted. |
| 600 Series | Graduate courses not normally open to undergraduates. |

Graduate Level
Course Numbering
System

Course numbering within a series is at the discretion of the department offering the courses.

Undergraduate Courses for Graduate Credit	Selected undergraduate courses have been identified by some departments that may be taken by graduate students (under departmental advisement) for graduate credit. See departmental listings.
Workshops	The number 498 following the departmental prefix indicates an "open" workshop which allows the departments to offer a variety of workshops under this designation. Such workshops may or may not carry graduate or undergraduate credit.
Student Load	<p>The normal work load for a full-time student during the fall and spring semesters is 9 semester hours. The load may be increased if approval has been obtained from the student's advisor.</p> <p>During the summer session, the normal work load is one semester hour of work for each week of enrollment. Generally, students carry only one course during the Pre or Post Session. If permission has been given by the dean of graduate studies, students may carry more than six semester hours of work in the Regular Session.</p>
Course Credit by Examination	A graduate student may obtain course credit through examination. Application may be made through the Office of Graduate Studies within the first two weeks of the semester. The student's advisor must approve the application.
Transferring Credit from Other Institutions	West Chester students who wish to take course work at other institutions for credit at West Chester must first obtain approval from their chairperson or coordinator. Other restrictions and requirements are the same as those given in "Transfer of Credit," pages 10-11.
Change of Status	A provisional degree student may petition for full graduate standing by making a written request to the Office of Graduate Studies. Credit earned as a provisional degree student or as a non-degree student may be accepted in a degree program only upon the recommendation of the student's advisor. Provisional degree students should consult their advisors well in advance in order to select work appropriate for transfer toward the degree.
Changing to Auditor Status	Before the end of the add period, a student may apply to become an auditor by completing a change-in-class-status form available in the Office of Graduate Studies and obtaining necessary approval.
Changes in Program	In order to change from one degree program to another, a student must submit an application to Office of Graduate Studies. No fee is charged.
Adding a Course	Students may add a course by filing a schedule change form in the Office of the Registrar during the Schedule Change period.

A. During the first week of a semester, or the equivalent time in summer sessions, a student may drop a course, thereby receiving no grade by filing a schedule change form in the Office of the Registrar during the Schedule Change Period.

B. A grade of "W" will be entered on the academic record of any student who drops a course *between the end of the first week and before the end of the fifth class week* or the equivalent in summer sessions.

Students who drop a course *between the end of the fifth class week and the end of the tenth class week* will receive a grade of WP or WF from their instructor.

Students who do not plan to complete a course in which they are enrolled must file a schedule change form in the Office of the Registrar. Students who fail to do this can expect to receive a grade of F for the course.

If a student is doing passing work at the time of approved withdrawal, he or she receives a WP, which is not treated as a grade. If the student is failing, he or she receives a WF, computed as an F.

If a student withdraws before the sixth meeting of a class, the withdrawal will be viewed as a cancellation of enrollment, and the course will not be entered on the student's academic record. The student is entitled to a refund. See Fees and Expenses.

A student who attends six or more meetings of the class will not be eligible for a refund, and the course will be entered on the student's permanent grade record either as a WP or as a WF.

Dropping a Course

Students wishing to withdraw from summer sessions should follow the same procedure for withdrawal from a course.

Withdrawal from Courses in Summer Sessions

Students wishing to withdraw from the university or take a leave of absence are to go to the Office of the Registrar and follow the prescribed procedures. If illness or some other emergency interrupts the student's work, he or she must notify the Office of the Registrar at once. Unless a student withdraws officially, F grades will be recorded for unfinished courses. The student must also notify the Office of Graduate Studies.

Withdrawal from the University

The following grading system is used:

Grading System

Grade	Interpretation	Quality Points
A	Superior	4
B	Above Average	3
C	Average	2
D	Below Average (see below)	1
F	Failure	
NG	No Grade (see below)	
WF	Withdrew Failing	
WP	Withdrew Passing	
Aud	Audit	

Degree students must repeat any required course for which they have received a D or F grade. All grades received for a course will remain on the student's record, but only the highest grade achieved will be used to calculate the cumulative average. A form for reporting repeated courses must be obtained from the Office of Graduate Studies, completed, and returned there.

Removing No Grades

Students must complete courses for which they have received an NG within the first nine weeks of the next semester or the NG will become an F. The student must file a request in the Office of Graduate Studies for an extension of this time limitation. This request must be endorsed by the faculty member who entered the NG. The nine-weeks requirement does not apply to independent study nor to the thesis, research report, or practicum, or recital.

Grade Reports

Grade reports are mailed to the student soon after the end of a semester or summer session. Students are reminded to check their reports against grade requirements and other regulations and to have their reports at hand when consulting with advisors.

Obtaining Transcripts

Transcripts of work taken at West Chester may be obtained from the Registrar's Office. A check or money order, payable to West Chester University, must accompany a written request which should include the period of attendance at the university, the curriculum pursued, Social Security number, and any change of name during enrollment. For transcript fee, see Fees and Expenses.

Changes in Name or Address

Students should notify the Office of the Registrar, the Office of Graduate Studies and their department immediately of any change of address or change in name.

Graduate Record Examination

Scores for the Graduate Record Examination are required for many of the degree programs, either at the time of application or at some later date. The prospective degree student should consult the appropriate program outline.

The Graduate Record Examination is administered by the Educational Testing Service, Box 955, Princeton, New Jersey 08540 and consists of the Aptitude Test (morning test) and the Advanced Tests (afternoon tests in the fields of concentration). Application forms and data may be obtained either by writing directly to the service or from the Counseling Center, Room 129, Lawrence Center. Application forms must be filed with the Educational Testing Service at least 15 days prior to the date of any examination.

The examinations may be taken at any of the testing centers designated by the Educational Testing Services. These tests are administered periodically at West Chester—generally in October, December, February, April, and June.

Some degree programs require students to take the Miller Analogies Test which is administered each week at the Counseling Center, Room 129, Lawrence Center. It requires less than two hours and is given by appointment. Students requiring the test should telephone the center (215-436-2301) at least three weeks before a test date is needed. Once a date has been established, the student must pay a \$15.50 fee in person at the time the test is taken at the Counseling Center.

Miller Analogies Test

A comprehensive examination covers the student's major field and is constructed, administered, and evaluated by the faculty of the student's major department or program. Candidates must apply for the examination prior to the semester in which all courses in the concentration are earned.

The Comprehensive (Area of Specialization) Examination

Other examinations may be required of degree students. All requirements given under the heading of the particular program should be carefully noted.

Other Examinations

Students should consult specific programs to determine whether independent study directed toward either the thesis or a research report is required, offered optionally, or omitted.

Research Requirements

The degree student must submit a letter of intent to graduate in person, along with a check for \$30, made payable to Commencement Fund, to the dean of graduate studies on or before the following dates:

Letter of Intent to Graduate

May Graduation	—February 1
August Graduation	—June 1
December Graduation	—October 1

At that time, cap and gown orders will be taken. A copy of the letter should also be submitted to the department program coordinator.

Upon its approval by the department, the thesis must be typed in accordance with specifications which may be obtained from departmental offices or the Office of Graduate Studies. When the dean of graduate studies has approved the thesis, the student is responsible for transmitting all required copies to the library for binding.

Submitting the Thesis for Binding

College graduates who wish to obtain teaching certification should consult with the Office of Certification, 104 Anderson Hall.

Graduates Seeking Initial Certification

The Instructional II (Permanent) Certificate shall be a permanent certificate issued to an applicant who has completed three years of satisfactory teaching on an Instructional I Certificate attested to by the superintendent of the school district in which his or her most recent service was performed, or in the case of an intermediate unit, the executive director, or in the case of an approved non-public

Permanent Certification

school, the chief school administrator. In addition the applicant shall have completed 24 semester hours of collegiate study at an approved four-year institution and subsequent to the conferring of the baccalaureate degree.

IN-SERVICE PROGRAMS. The 24-semester-hour requirement may be satisfied, in whole or in part, through in-service programs approved by the Secretary of Education of the Commonwealth.

Educational Specialist Certification

Commonwealth regulations also provide for certification as an educational specialist to those persons who successfully complete an approved program of study and have the recommendation of the training institution. The Educational Specialist Certificate is issued on two levels.

Educational Specialist I (Provisional). The Educational Specialist I Certificate is issued for entry into a professional position in the schools of the Commonwealth. The applicant must have completed an approved program of studies, possess a baccalaureate degree, and been recommended for certification by the preparing institution.

Educational Specialist II (Permanent). The Educational Specialist II Certificate is a permanent certificate issued to an applicant who has completed three years of satisfactory service on an Educational Specialist I Certificate, and who has completed 24 semester hours of post-baccalaureate or graduate study at a regionally approved institution. In addition, the applicant must have received the recommendation of the superintendent of the school district in which his or her most recent service was performed, or in the case of an intermediate unit, the executive director, or in the case of an approved non-public school, the chief school administrator.

Directory Information

The Family Educational Rights and Privacy Act defines the term "directory information" to include the following categories of information: the student's name, addresses, telephone numbers, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance,*degrees and awards received, and the most recent previous educational agency or institution attended by the student. The college will limit information which is made public to categories such as these but will not necessarily publish all such information in every listing.

Students who do not wish to have any or all of such "directory information" published without their prior consent must file notice—undergraduates in the Office of the Registrar and graduate students in the Office of Graduate Studies and Office of the Registrar. A signed, dated statement specifying items not to be published must be brought by the student to the appropriate office within the first fifteen calendar days after the beginning of the fall semester.

UNIVERSITY SERVICES

AND

STUDENT LIVING

The Francis Harvey Green Library offers the graduate student an excellent environment for study and research. The first section of the building was completed in 1966 and the six-story addition was opened in the fall of 1976. The library complex contains a graduate study and lounge, seminar rooms, a special collections room, a map room, an enlarged instructional materials center with audio-visual facilities, an enlarged periodicals collection, and increased micro-reading facilities.

**Francis Harvey
Green Library**

The general collection of 415,000 volumes and 2,450 periodicals is augmented by an extensive micromedia collection representing more than 350,000 volumes including books, periodicals, newspapers, doctoral dissertations, maps, and an extensive collection of government publications. The total resources of over three quarters of a million volumes compares favorably with other major public and private research libraries in our geographic area. The special collections include the Chester County Collection of Scientific and Historical Books; the Normal Collection (publications by the faculty and alumni); the Ehringer Collection (a collection of historical books on physical education); the Biographies of the Signers of the Declaration of Independence by John Sanderson; and the Shakespeare Folios. Also worthy of note are the children's literature, the instructional media, and music collections, and the Philips collection of autographed books.

The university library, through its staff of 14 professional librarians, provides the services required by students and faculty working in all areas covered by the university's instructional programs. Among the many services are reference, computerized on-line literature searching, interlibrary loan, and photoduplication.

The Bureau of Research and Related Services fosters the development of basic, applied, and institutional research and provides facilities for the tabulation and analysis of research data. The research function of the bureau encompasses studies initiated by the faculty and administrative staff as well as studies jointly sponsored by the university and various educational agencies and foundations.

**Bureau of
Research and
Related Services**

The bureau assists faculty and students in securing financial support for their research projects.

Data processing services include the tabulating and summarizing of information required by various administrative divisions of the university.

Housing

West Chester provides housing facilities for its graduate students only during the summer sessions. Applications for summer housing are available for men or women in the Office of Student Development in the Sykes Union Building. Graduate students are expected to abide by the housing regulations governing undergraduate students. The university has no facilities for the housing of married students. For assistance in locating off-campus housing, students may contact the Office of Off-Campus Life, Sykes Union Building, Rosedale Avenue. Telephone 436-3305.

**College Policy
for Storm
Closings**

If storm conditions make it necessary to close the university, announcement will be made over most area radio and television stations which employ a system of code numbers. West Chester's numbers are:

853	Day classes for undergraduate students
2853	Graduate classes and other Evening classes

**Student Health
Service**

Two part-time physicians and four registered nurses are available to meet emergency and first-aid needs and to perform routine treatment of minor illnesses and minor surgical conditions. The university does not furnish other medical care or bear the costs of medical or surgical treatment or hospitalization. The community of West Chester has qualified physicians and excellent facilities at the Chester County Hospital. Health Services is located in Reynolds Hall and is open Monday through Friday from 8:00 AM until midnight and Saturday and Sunday from noon to 8:00 PM. Any emergencies during the night must go to the Chester County Hospital Emergency Room.

Only full-time graduate students carrying nine credits may take advantage of a group medical illness and accident insurance policy approved by the university.

The choice of two policies is offered. One is on a nine-month basis only, strictly covering accidents or injuries. The second is on a twelve-month basis, covering both medical illnesses and accidents or injuries. These policies may be obtained at a minimal premium cost from the Infirmary Health Service.

Computer Center

The Computer Center at West Chester serves a variety of users both on and off campus. Many of the university's administrative functions depend strongly on computer operations. These include registration, grades, class lists, billing, etc., and the student will experience this computerization in his or her contacts with the various university administrative offices.

More importantly, the computer is an instructional and research tool. The Computer Center offers the student and faculty users time-shared, remote access to its computers. By the use of 100 terminals scattered about the campus, more than 80 users can simultaneously be served on-line while others can be operating in the batch mode.

The availability of the computer, 24 hours a day, 7 days a week, combined with the ready availability of terminals—even in the

dormitories—makes computing a handy tool for the West Chester community.

The academic functions are supported by the availability of scientific languages and software which can be easily used, even by those without computer experience. This includes a variety of statistical software.

In addition to the courses designed to teach computing, the computer as a tool is utilized in many other classes as well, and systems have also been developed by some departments for remedial and individual study programs. The Computer Center will continue to work with the faculty in developing new roles for the computer in the educational process.

West Chester University has kept up with the rapid changes in technology by augmenting its computer systems with minicomputers and microcomputers. At present these include a Hewlett Packard 3000/33 (donated by Hewlett Packard), a Data General Nova 2, more than 20 microcomputers, and a variety of graphics and plotting devices.

The university is planning the creation of an All-College Academic Computing Center open around the clock, which will house all equipment that is available for student use.

Graduate students who need help in meeting minimal speech standards may use the services of the Speech and Hearing Clinic at no cost. The clinic is conducted by the Department of Communicative Disorders in Wayne Hall.

Speech and Hearing Clinic

The university provides career planning and placement services for its students and graduates.

The Career Development Center libraries provide information about careers, federal and state government positions, application forms, procedures, and job requirements.

The services are available to graduate students including registration, development and mailing of credentials to prospective employers, career counseling, use of private facilities for on-campus interviews arranged by the applicant, and participation in a program of on-campus interviews arranged by the Career Development Center. A fee is charged for the development and service of a credentials file.

Career Development Center

The Career Development Center is located in Lawrence Center.

The Women's Center is open to all women of West Chester University, and has a particular interest in serving the needs of the returning woman student. Located in the Learning and Research Center, the Women's Center provides a lounge area for conversation, study, and eating, referrals on campus and within the community, peer counseling, special interest programs (lectures, films, etc.), and a drop-off center for children. For more information, call (215)436-2122.

Women's Center

Black Student Union

The Black Student Union, which was formed in 1971, is dedicated to the creation of a relevant atmosphere for black students at West Chester. Black Student Union membership is open to all West Chester students, faculty, and staff—regardless of race, color or creed—who have a concern for the black cause.

A major purpose of the organization is to broaden and enhance the academic and social life for black students at the university. The union's democratically structured constitution provides for an executive board, elected by the membership. Applications for membership in the Black Student Union are reviewed by the executive board. Applications for membership may be made at the Black Student Union office in the basement of Recitation Hall.

Institute for Women

The Institute for Women is an independent body designed to represent the interests of women on the campus. It serves as the parent organization for the Women's Center, the Women's Studies Program, and the Title IX and Sex Discrimination Board. The institute is headed by a director and a board of directors.

Located in 211 New Main Hall, the institute sponsors a number of activities to enhance the self-esteem and career success of women at the university. The newest activity initiated by the Institute is the Annual Grace Cochran Research on Women Award, named after a 1906 graduate of the West Chester State Normal School; it is designed to encourage women-centered research by students. The institute also prepares periodic reports on the status of women at the university. For more information, students may call (215) 436-2464, 2122.

Veterans' Affairs

Veterans' Affairs are administered by the Office of Financial Aid, Learning and Research Center. All veterans, certain dependents of disabled or deceased veterans, and war orphans who wish to obtain educational benefits under the appropriate public laws must register with that office during college registrations. The Veterans Administration requires students who are veterans to schedule at least nine semester hours per semester in order to receive full-time benefits under the G.I. Bill.

Honor Societies

The university participates in sponsoring an active chapter of Phi Delta Kappa, the international graduate honor society. Membership in the West Chester chapter, which was organized in 1956, is by invitation and recognizes scholarship in all fields of education.

GRADUATE STUDENTS ARE, OF COURSE, ELIGIBLE TO PARTICIPATE IN THE ACTIVITIES OF THE UNDERGRADUATE HONOR SOCIETIES at West Chester if they are members. These organizations are: Alpha Epsilon, Alpha Kappa Delta, Alpha Lambda Delta, Alpha Mu Gamma, Alpha Psi Omega, Eta Sigma Gamma, Gamma Theta Upsilon, Kappa Delta Pi, Pi Gamma Mu, Phi Kappa Delta, Pi Kappa Delta, Pi Kappa Lambda, Pi Mu Epsilon, Phi Alpha Theta, Phi Delta Kappa, Phi Epsilon Kappa, Phi Mu Alpha Sinfonia, Phi Sigma Tau, Psi Chi, Sigma Alpha Iota, Sigma Tau Delta.

Under the auspices of the Intracollegiate Governmental Association, the Office of Co-Curricular Programs is charged with bringing artists of national prominence in the area of music, recitation, and theatre to the members of the academic community. In addition, the university administers the William Pyle Philips Lecture Series, featuring distinguished individuals from the world of arts, politics, and sciences.

Cultural Affairs

Recreational services at West Chester University are designed to meet the leisure time needs of the university community. To meet these needs, four distinct programs offer a wide range of activities. Recreation Sports/Intramurals provide the student with opportunities to participate in individual and/or group competition. The Outdoor Adventure Program, through a variety of activities, caters to those who enjoy the "great outdoors." This program utilizes the natural environment for recreation, instruction, and the perfection of skills. For those free-wheeling persons, the general Recreational Program provides drop-in facilities. These include gymnasiums, swimming pool, and a picnic area. The fourth program area is All-College Recreation. Arts and crafts, skin and scuba diving, bike sprints, folk, square and disco dances, run-for-fun, and swim-for-fun are offered.

Recreational Services

Located on the second floor of Lawrence Hall, the Counseling Center provides counseling services without charge to all undergraduate and graduate students at West Chester. The faculty in the Counseling Center includes licensed psychologists who are experienced in working with college students. Students may discuss their concerns, feelings, hopes, and interests freely and in strict confidence.

Counseling Center

COUNSELING SERVICES:

Since the Counseling Center provides services for a wide range of concerns, each student's experience will be tailored to his or her request. Students may want to clarify their vocational or educational choices, improve their interpersonal skills, or resolve personal conflicts. Their choice of approach could include one or more of the following counseling center services.

1. *Individual vocational* counseling consists of a one-to-one counseling experience which focuses upon the student's choice of major and vocation. Vocational choice is most solid when it is the outgrowth of understanding one's self. Such understanding requires time and thought and involves the student's identifying his or her own style, values, interests, and abilities. Psychological testing as well as discussion often enhances self understanding.
2. *Individual counseling for personal problem solving* consists of a one-to-one counseling experience where the focus is upon resolving personal conflicts, conflicts with others, and upon improving the student's expertise at making personally meaningful choices. It may also help some people avoid decisions which restrict their personal growth and undermine their well-being.
3. *Group counseling* consists of a small group of peers with one or more counselors. Such groups meet usually once weekly to pro-

vide group members with constructive learning about themselves. Groups often have a specific focus. Past groups have focused upon:

- Elimination of self-defeating behavior
- Assertiveness training
- Anxiety maintenance
- Test anxiety reduction
- Weight reduction
- Career exploration
- Procrastination—how to avoid it

4. *Testing*—Information from psychological tests can be useful in increasing self understanding and can often assist in the process of vocational and educational decision making. The Counseling Center faculty are trained in the administration and interpretation of psychological tests and the student and his or her counselor can decide whether testing might be helpful. Arrangements can also be made at the Counseling Center for taking the Graduate Record Exam and the Miller Analogies Test—two graduate school admissions tests.
 5. *Consultation Services*—The Counseling Center faculty also are available to consult with staff and faculty members of the college community. They can assist with crises, program planning, group and interpersonal communications, as well as referrals to other agencies.
-

❧ STRUCTURE ❧

❧ OF THE ❧

❧ UNIVERSITY ❧

FACULTY OF ARTS AND SCIENCES

Anthropology and Sociology

Art

Biology

Chemistry

Geology and Astronomy

English

Foreign Languages

History

Mathematical Sciences

Philosophy

Physics

Psychology

Speech Communication and Theatre

FACULTY OF PROFESSIONAL STUDIES

SCHOOL OF BUSINESS AND PUBLIC AFFAIRS

Accounting

Business Administration

Criminal Justice

Economics

Government and Planning

Social Work

SCHOOL OF EDUCATION

Counselor, Secondary, and

Professional Education

Childhood Studies and Reading

Instructional Media

Special Education

SCHOOL OF HEALTH SCIENCES

Communicative Disorders

Health

Nursing

Physical Education

SCHOOL OF MUSIC

Instrumental Music

Keyboard Music

Music Education

Music History

Music Theory and Composition

Vocal and Choral Music

PROGRAMS OF

STUDY AND

COURSE

OFFERINGS

For the convenience of readers, the arrangement of course offerings is alphabetical by department or area of study.

Students may obtain a typical approved sequence of courses for any of the programs from the office of the appropriate school or department.

All courses, course substitutions, and course sequences are subject to change.

Because many program descriptions refer to courses offered by other departments, the following guide to course prefixes is provided.

Guide to Course Prefixes (symbols) Used in this Catalog

<i>PREFIX</i>	<i>DEPARTMENT/PROGRAM</i>	<i>PREFIX</i>	<i>DEPARTMENT/PROGRAM</i>
ACC	Accounting	EDE	Childhood Studies and Reading
ADM	Administration, Leadership for Women	EDF	Counselor, Secondary and Professional Education
AER	Special Programs	EDH	Counselor, Secondary and Professional Education
ASA	American Studies	EDM	Instructional Media
ANT	Anthropology and Sociology	EDO	Counselor, Secondary and Professional Education
ARH	Art	EDP	Counselor, Secondary and Professional Education
ART	Art	EDR	Childhood Studies and Reading
ASH	American Studies	EDS	Counselor, Secondary and Professional Education
BEN	Instrumental Music	EDU	Counselor, Secondary and Professional Education
BIO	Biology	EDX	Counselor, Secondary and Professional Education
BLA	Business Administration	ELB	Instrumental Music
BRC	Instrumental Music	ELO	Instrumental Music
BUS	Economics	ENG	English
CBA	Instrumental Music	ESL	Geology and Astronomy
CHE	Chemistry	ESS	Geology and Astronomy
CHO	Vocal/Choral Music	FIN	Economics
COR	Instrumental Music	FLM	English
CRJ	Criminal Justice	FRE	Foreign Languages
CRL	Chemistry		
CSC	Mathematical Sciences		
DRC	Instrumental Music		
ECE	Childhood Studies and Reading		
ECO	Economics		
EDA	Special Education		

PREFIX DEPARTMENT/PROGRAM

GER Foreign Languages
 GEO Government and Planning
 GRE Foreign Languages
 HAR Keyboard Music
 HEA Health
 HEB Hebrew
 HIS History
 HTR Health
 HUM Women's Studies
 ICO Instrumental Music
 IND Geology and Astronomy
 INS Instrumental Music
 ITA Foreign Languages
 JEN Instrumental Music
 KEN Keyboard Music
 LAN Foreign Languages
 LAT Foreign Languages
 LIN Foreign Languages
 LIT English
 MAB Instrumental Music
 MAC Keyboard Music
 MAK Keyboard Music
 MAP Instrumental Music
 MAS Instrumental Music
 MAT Mathematical Sciences
 MAW Instrumental Music
 MBA Instrumental Music
 MGT Business Administration
 MHL Music History
 MKT Business Administration
 MSC Biology
 MSI Special Programs
 MTC Music Theory & Composition
 MUE Music Education
 NSG Nursing
 NSL Nursing

PREFIX DEPARTMENT/PROGRAM

ORG Keyboard Music
 PAD Government and Planning
 PEA Physical Education
 PEC Instrumental Music
 PED Physical Education
 PEL Physical Education
 PEN Instrumental Music
 PHI Philosophy
 PHY Physics and Pre-Engineering
 PIA Keyboard Music
 POR Foreign Languages
 PSC Government and Planning
 PSY Psychology
 RUS Foreign Languages
 SBA Instrumental Music
 SCB Biology
 SCC Chemistry
 SCE Geology and Astronomy
 SEN Instrumental Music
 SOC Anthropology and Sociology
 SPA Foreign Languages
 SPC Speech Communication and Theatre
 SPP Communicative Disorders
 SSC Social Studies, Ethnic Studies, Peace and Conflict Studies
 STC Instrumental Music
 SWO Social Work
 SYO Instrumental Music
 THA Speech Communication and Theatre
 VOC Vocal/Choral Music
 VOI Vocal/Choral Music
 WEN Instrumental Music
 WIN Instrumental Music
 WWC Instrumental Music

Administration

Dr. Milne, *Program Coordinator*

CONCENTRATION ADVISORS

Dr. Mustalish, *Health Services Administration*

Dr. Moore, *Psychology/Personnel Administration*

Mr. Burton, *Public Administration*

Ms. Hodgins, *Social Work*

Mr. Bielski, *Urban and Regional Planning*

Dr. Rengert, *Leadership For Women*

Dr. Youmans, *Sport and Athletic Administration*

MASTER OF SCIENCE IN ADMINISTRATION

The Departments of Health, Government and Planning, Psychology, Physical Education, and Social Work offer a program leading to a Master of Science in administration with areas of concentration in (a) Health Services Administration, (b) Leadership For Women, (c) Public Administration, (d) Psychology, (e) Physical Education, (f) Social Work, and (g) Urban and Regional Planning. This degree is designed for persons with differing undergraduate degrees who are interested in administrative careers in governmental service, health care, and human services as well as other private and public organizations. The program consists of an 18 semester hour Administrative Core of courses plus 18-24 semester hours of courses in a selected concentration area as follows:

1. Administrative Core: ADM 501, 502, 503, 504, 505, 506

2. Area of Concentration*

a. Health Services Administration

Required: HEA 630, 631, 632, 611

Six credits of health electives, under advisement

b. Leadership For Women

Required: ADM 530, 531, 533, PSY 565

Any two: PSC 515, ECO 503, PSC 552, GEO 530, HIS 451, SWO 521, ADM 539, or other electives under advisement

c. Public Administration

Required: PSC 500, 600

Any four: graduate courses listed in this catalog under Political Science and Public Administration, pages 90-91.

d. Psychology

Required: PSY 503, 505

Any two: graduate courses listed in this catalog under Psychology, pages 133-135.

Six hours of free electives under advisement

e. Social Work

Required: SWO 520, 523, 531, 532, 550, 551, 552, 553

f. Sport and Athletic Administration

Required: PED 580, HPE 600, PED 601, PED 602, PED 604, PED 606, PED 607

g. Urban and Regional Planning

Required: GEO 509, 521, 525, 527

Any two: GEO 505, 506, 507, 524, 526, 585

*Refer to departmental listings for course listings.

CERTIFICATE IN ADMINISTRATION

Persons who wish to fulfill only the Administrative Core may do so and receive a Certificate in Administration. Those interested in this option must meet the same admission criteria as full degree students.

ADMISSION

Applicants must submit undergraduate transcripts demonstrating quality performance in their undergraduate majors, scores from the Miller Analogies Test or Graduate Record Examination or Graduate Management Admissions Test, an essay outlining career plans, and two reference forms from professional supervisors.

DEADLINE DATES FOR APPLICANTS: May 1 for summer sessions and fall semester admission; November 1 for spring semester admission. Individuals interested in certain courses may enroll for a maximum of nine hours on a space available basis.

COURSE DESCRIPTIONS

ADMINISTRATION

Symbol: ADM

501 Administrative Theory and Environment

(3) Organizational theory and practice in public and private institutions. Legal framework for administration, application of public policy, socio-legal issues, and values of society considered.

502 Computers for Managers. (3) Quantitative applications in administration. Computer as a management tool. Computer basics and management information systems.

503 Accounting for Administration (3) A study of accounting principles and procedures for both profit and non-profit organizations. Emphasis is on the concepts and effects of accounting policies and procedures with which the administrator will normally come into contact.

504 Communication for Administrators (3)

Development of communication skills for the effective writing of letters, memos, reports and proposals. Structuring and conducting meetings and presentations.

505 Organizing Human Resources (3)

Administrative models and concepts of human behavior in formal organizations and decision processes. Personnel administration. Effective selection, utilization, and development of human resources for the total organization. Affirmative action and equal opportunity.

506 Budgeting and Fiscal Management (3)

Budget forecasting and implementation. Analysis, planning and control of sources and allocations of funds. Measurement and control mechanism such as Program Planning Budgeting System (PPBS), Zero-Base Budgeting (ZBB), and Management by Objectives (MBO) emphasized.



Anthropology and Sociology

Dr. Luck, *Chairperson*

PROFESSORS

Marshall J. Becker, Ph.D., *University of Pennsylvania*

Harvey C. Greisman, Ph.D., *Syracuse University*

Glenn W. Samuelson, Ed.D., *University of Maryland*

ASSOCIATE PROFESSORS

Patrick W. Luck, Ph.D., *University of Connecticut*

Dimitri I. Monos, Ph.D., *University of Pennsylvania*

Martin Murphy, A.M., *University of Michigan*

Paul A. Stoller, Ph.D., *University of Texas*

ASSISTANT PROFESSORS

Jon A. Cowen, A.M., *University of Pennsylvania*

Bonita Freeman-Witthoft, Ph.D., *University of Pennsylvania*

The Department of Anthropology and Sociology has suspended until further notice the offering of its M.A. and M.Ed. programs in anthropology and sociology. During the term of this suspension no students will be admitted as degree candidates to the department. It, however, will offer on a limited basis graduate courses in anthropology and sociology to graduate students from other areas as well as to advanced undergraduate majors and non-majors.

COURSE DESCRIPTIONS

ANTHROPOLOGY

Symbol: ANT

500 Strategies and Techniques in Anthropological Research (3) The logic of anthropological research; fundamentals of research design, data collection, evaluation.

512 Ethnographic Studies (3) Intensive survey of a single culture area. Area for study announced in advance.

515 Problems in Anthropology (3) Perennial issues in anthropological explanation.

555 Proseminar in Urban Anthropology (3) Application of techniques of anthropological field investigation to the analysis of urban environments.

580 (also LIN 580) Language and Culture (3) See LIN 580.

595 Seminar in Anthropology (3) PREREQ: Permission of instructor.

599 Independent Studies in Anthropology (1-3) PREREQ: Approval of instructor and department chairperson.

600 Research Report (2)

610 Thesis (3-6)

SOCIOLOGY

Symbol: SOC

500 Research Design (3) The logic of sociological research; fundamentals of research design, data collection, evaluation.

521 Youth and Delinquency (3) Juvenile delinquency as a form of social deviance; theories of causation and control.

531 Social Problems (3) Analysis of how things come to be defined as social problems.

532 History of Sociological Theory (3) Development of sociological thought.

533 American Minorities (3) Racial and ethnic group relations.

538 Crime and Justice (3) A sociological analysis of criminal law, crime statistics, causes of crime, and the administration of criminal justice.

539 Deviance and Control (3) An advanced analysis of social deviance and control.

540 (also LIN 540) Sociolinguistics (3) See LIN 540.

543 The Sociology of Complex Organizations (3) The sociological analysis and study of complex organizations. PREREQ: Advanced undergraduate or graduate standing and at least six credits in sociology including SOC 200 or its equivalent or consent of instructor.

550 Seminar in Sociology (3) PREREQ: Permission of instructor.

590 Independent Studies in Sociology (1-3) PREREQ: Approval of instructor and department chairperson.

Art

Mr. White, *Chairperson*

PROFESSOR

Pamela Hemphill, Ph.D., *University of Pennsylvania*

ASSOCIATE PROFESSORS

Jack G. Hawthorne, M.F.A., *University of Pennsylvania*

Perry F. Hoberg, M.A., *University of Delaware*

Victor Lasuchin, M.F.A., *University of Pennsylvania*

Gus V. Sermas, M.F.A., *University of Wisconsin*

Carolyn G. Simmendinger, M.F.A., *Tyler School of Art*

Linwood J. White, M.F.A., *University of Pennsylvania*

ASSISTANT PROFESSORS

Richard E. Blake, B.F.A., *Tyler School of Fine Arts*

Ronald N. Defino, M.F.A., *Tyler School of Art*

William J. Rarick, M.F.A., *Tyler School of Art*

Bernice Shapiro, M.Ed., *Tyler School of Art*

INSTRUCTOR

John Baker, B.A., *West Chester University*

COURSE DESCRIPTIONS

ART

Symbol: ART

516-517 Painting I-II (3) (3) Individual expression in painting. Experimentation is encouraged.

520 Painting: Independent Projects (3) Individualized instruction at advanced level. Development of professional, personal, and imaginative statements leading to formation of student's pictorial identity.

521 Sculpture I (3) Introduction to sculpture via the fundamentals of 3-D design. Use of basic tools, development of skills, techniques, and processes in creating sculpture. Projects in plaster, clay, stone, wood.

522 Sculpture II (3) Advanced problems in sculpture; continuing exploration of form, structure, process. Use and maintenance of tools. Materials; their origins and supply sources. Projects in clay, stone, wood, plastic, plaster, wire, new materials.

525 Multi-Media Workshop in Sculpture III (3) Fabrication methods and techniques, using wood, plastic, various metals.

531 Ceramics I (3) Ceramic techniques and aesthetics of clay, leading toward development of creative expression. Exercises in hand-built and wheel-thrown forms. Formulation of clay bodies, glaze bodies, and calculations; loading and kiln firing techniques. Also, basic exercises for elementary and secondary teaching levels.

532 Ceramics II (3) Further development of expression for those who have mastered basic ceramic processes. Research in clay bodies, glaze chemistry, firing techniques, kiln construction. Creative problems.

533 Ceramics: Studio Problems (3) Individual projects involving the total or specialized areas of the ceramic process. Practical experience through helping to maintain the ceramic complex.

534 Ceramics: Independent Projects (3)

541 Printmaking: Relief, Independent Projects (3) Advanced study with individualized instruction. Collagraph, lino-cut, woodcut techniques. Combining various printing processes with relief printmaking.

542 Printmaking: Silk-Screen, Independent Projects (3) Advanced study with individualized instruction. Technical and aesthetic possibilities including photo-stencil, incorporation of silk-screen with other printmaking processes.

543 Printmaking: Intaglio, Independent Projects (3) Advanced study with individualized instruction. Relief etching and basic intaglio techniques for work on metal plates. Drypoint, straight line etch, soft and lift grounds, aquatint, engraving. Combining various printing processes with intaglio printmaking.

544 Printmaking: Lithography, Independent Projects (3) Advanced study with individualized instruction. Aluminum plate and stone lithography.

raphy techniques. Combination of various printing processes with lithography.

546 Drawing: Independent Projects (3) Advanced study with individualized instruction. Emphasis on professional, personal, and imaginative statements leading to student's iconographic identity.

547 Two-Dimensional Design: Independent Projects (3) Advanced study with individualized instruction. Design elements and analytical principles of organization. Emphasis on professional, personal, and creative statements leading to formation of professional employment.

549 Graphic Design: Independent Projects (3) Advanced study with individualized instruction. Developing means for solving communication problems of diverse character with emphasis on practical application. Projects are refined into portfolio presentations for professional employment.

551 Art Education in the Elementary School (3) Current trends in art education for the elementary school.

565 Crafts: Independent Projects (3) Projects involve varied media and their techniques and processes. Exploration of 2-D and 3-D crafts and their application in recreational and elementary school programs.

566 Crafts: Weaving (3) Basic techniques of weaving are explored with emphasis upon fabric design and craftsmanship.

567 Crafts: Weaving (3) Provides opportunities for the weaver to further explore and develop skills as a designer. Emphasis is placed on the in-

terrelationships between functional materials and design processes.

568 Crafts: Weaving (3) To resolve advanced weaving problems in projects of an individual, creative nature leading to practical application.

576 Primitive Art (3) Ritual and myth from prehistory to early Ancient Near East; contemporary primitive cultures; psychological and psychoanalytical interpretations; comparison with phenomenon of primitivistic interests of the West.

580 European and U.S. Art (3) For the student who is deficient in art history and wishes to augment his or her field (e.g. social studies, literature, philosophy). Analysis of the major forms and styles from Renaissance to present.

581 The Artist and Society (3) Personal statement of the student's commitment to art. The nature of the creative impulse; the necessity to society of creative production.

590 Independent Studies in Art (1-3)

595 Latin-American Art (3) Interpretation of 20th-century environment architecture and decoration with relationship to cultural development in Latin America.

596 Introduction to Aesthetics (3) Introduction to the aesthetic theories and art forms in the context of social change, philosophy and sciences, creation, and the creative process.

597 History of Aesthetics and Art Criticism (3) Philosophical theories of art production from Ancient Greece through the 19th century. Relationship of aesthetic experience to forms and to technical, psychological, and cultural values.

Biology

Dr. Romig, *Chairperson*

Dr. Dorchester, *Coordinator for Graduate Studies*

PROFESSORS

Carmela L. Cinquina, Ph.D., *Rutgers—The State University*

Thomas DeMott, V.M.D., *University of Pennsylvania*

John E. C. Dorchester, Ph.D., *University of Toronto*

William R. Overlease, Ph.D., *Michigan State University*

Ronald F. Romig, Ph.D., *University of Delaware*

Richard I. Woodruff, Ph.D., *University of Pennsylvania*

ASSOCIATE PROFESSORS

Robert W. Bernhardt, M.S., *Syracuse University*

Georgann Cullen, M.A., *Kent State University*

Marianne K. Eleuterio, Ph.D., *University of Delaware*

Jack Waber, Ph.D., *University of Hawaii*

ASSISTANT PROFESSORS

Frank Eliot Fish, Ph.D., *Michigan State University*

Kathleen A. Tweeten, Ph.D., *Kansas State University*

The Department of Biology offers two degree programs, one leading to the Master of Arts in biology and the other to the Master of Education in biology.

Admission to the Programs

Applicants for either program must meet the general requirements for admission to degree study at West Chester and, in addition, submit scores for the Graduate Record Examination (verbal, quantitative, and advanced biology).

Admission to the Master of Arts Program

Applicants must present a minimum of two semesters of general college chemistry, one semester of organic chemistry, one semester of mathematics, and at least 24 semester hours of biological science.

Admission to the Master of Education Program

Applicants must present a minimum of two semesters of general college chemistry, one semester of organic chemistry, and at least 18 semester hours of biological science.

Degree Candidacy

Students who intend to obtain a master's degree in biology must apply for degree candidacy by the time they have completed 15 hours of graduate credit in the Department of Biology. The application forms are obtained from the Office of Graduate Studies. In order to qualify for admission to candidacy the student must:

1. Have completed a minimum of 12 hours of graduate courses in biology with an average of B (3.0) or better.
2. Have submitted Graduate Record Examination scores for verbal, quantitative, and advanced tests.

3. Have performed satisfactorily on the departmental qualifying examination, which is administered in the fall and spring semesters. Students should notify the department graduate coordinator in writing of their intention to take the examination by October 1 of fall semester and February 1 of spring semester.

4. Have removed any conditions under which the student was originally admitted to graduate study.

REQUIREMENTS FOR THE MASTER OF ARTS DEGREE IN BIOLOGY

30 Semester Hours

The candidate for the M.A. in biology must complete 30 semester hours of graduate work, of which at least 24 credits must be in biology. Six of these credit hours must be either in a thesis or a seminar program as outlined below. Six credit hours may be taken in allied sciences, approved by the department. In addition the candidate must perform successfully on an oral defense of the thesis or on the oral comprehensive examination.

A. Thesis (BIO 610)

The thesis should be based on independent laboratory or field observations and should constitute a contribution to existing knowledge. Although publication is not a requirement, the thesis should be in a format acceptable to any standard journal in the field. The candidate will be expected to defend the thesis during an oral examination.

B. Seminars in Biology

The candidate will participate in three seminars chosen from the following seminars: BIO 520—550—560—570. Seminars selected are subject to the approval of the faculty advisor or instructor. The content of the seminars will figure prominently in the final oral comprehensive examination.

REQUIREMENTS FOR THE MASTER OF EDUCATION DEGREE IN BIOLOGY

34 Semester Hours

The candidate for the M.Ed. must complete 34 semester hours of graduate work, and of these, 12 hours must be taken in professional education courses in accordance with the requirements of the School of Education. (See pages 63-64.) In the area of biology, BIO 500 or equivalent is required of all M.Ed. candidates. Of the remaining 18-20 semester hours, all must be taken in biology, or, under advisement, three of these hours may be taken in an allied science. The final comprehensive oral examination may be taken any time after the completion of 28 semester hours. Students may elect to be examined in the subject matter of their courses or may elect to present a seminar and be examined in the subject matter of the seminar and peripheral areas of knowledge.

Finally the student must fulfill an elective requirement of from 0-4 semester hours in either professional education or academic course work.

COURSE DESCRIPTIONS

BIOLOGY

Symbol: BIO

500 Methods and Materials in Biological Research (2) Literature searching in biology; preparations of scientific reports; experimental design.

503 Mammalian Physiology (3) Fundamental physiological processes in mammals. PREREQ: college biology.

505 Field Ecology and Natural History (3) Identification of natural forms in local habitats. A course for endorsement of teachers in outdoor education. Not applicable to a master's degree in biology. Offered in summer session.

520 Seminar in Cellular Biology (2) Oral and written reports on topics drawn from such areas as cellular physiology, cytology, genetics, histology, and microbiology. PREREQ: Permission of department.

528 Animal Histology (3) Structure and function of animal tissues and organs. PREREQ: College biology or zoology.

530 Genetic Theory (3) Structure and function of nucleic acids, genetic regulatory mechanisms, repair mechanism, mutagenesis, natural and engineered DNA recombination. Emphasis on current literature. PREREQ: College biology, genetics, and organic chemistry.

539 Human Heredity (3) The innate qualities of human beings and the genetic basis for these qualities. PREREQ: General genetics or permission of instructor.

543 Experimental Embryology (3) A laboratory course introducing the student to techniques used in experimental embryology. PREREQ: Embryology and organic chemistry or permission of instructor.

547 Growth and Development (3) Discussion course dealing with current topics in the field of developmental biology. PREREQ: College biology or zoology. Genetics and embryology recommended.

550 Seminar in Organismic Biology (2) Oral and written reports on topics drawn from such areas as development, morphology, physiology, systematics, and particular groups of organisms. PREREQ: Permission of department.

552 Comparative Parasitology (3) Morphology and life cycles of the important parasites of man and animals; epidemiology, pathogenesis, and methods of treatment and control. Two hours lecture and three hours lab. PREREQ: College biology or zoology.

554 Mycology (3) An introductory course including a general study of the biology of fungi and a survey of the field of medical mycology. PREREQ: General biology plus 4 additional hrs. of biology.

556 Virology (3) Molecular biology of bacterial, plant, and animal viruses; virus classification, ultrastructure, mechanisms of replication, and effects of virus infection on host cells. PREREQ: Genetics (BIO 330).

560 Seminar in Molecular Biology (2) Oral and written reports on topics drawn from such areas as biochemistry, biophysics, and microbiology. PREREQ: Permission of department.

561 Biochemistry I (3) The chemistry and metabolism of biologically active compounds including carbohydrates, lipids, proteins and phos-

phorus. PREREQ: Chemistry, including at least one semester of organic.

562 Biochemistry II (3) A laboratory course designed to be taken in conjunction with BIO 561. One three-hour laboratory per week.

564 Advanced Bacteriology (3) A study of bacteriological structure and metabolism with emphasis on laboratory techniques and recent advances as described in current literature. PREREQ: Undergraduate bacteriology and chemistry through organic.

565 Immunology (4) Immunoglobulin structure and function, nature of antigens, cell-mediated immunity, hypersensitivity, regulation of immunity, immunological diseases. Laboratory experience in immunological techniques. PREREQ: CHE 232.

566 Plant Physiology and Biochemistry (3) Plant-cell physiology including respiration, photosynthesis, enzyme catalysis, auxins, membrane phenomena. PREREQ: College botany, organic chemistry.

567 Endocrinology (3) Anatomy and physiology of the ductless glands and the role of hormones in regulation and coordination of body processes. PREREQ: College biology and organic chemistry.

570 Seminar in Populational Biology (2) Oral and written reports on topics drawn from such areas as biogeography, ecology, evolution, and natural history. PREREQ: Permission of department.

572 Applied Ecology (3) Principles of ecology applied in the practice of resource management: forestry, wildlife management, park management, and agriculture. PREREQ: Undergraduate course in ecology or permission of instructor.

575 Limnology (3) Physical, chemical, and geological features of the freshwater algae. PREREQ: College botany, general ecology.

578 Freshwater Invertebrates (3) Morphology, taxonomy, and bionomics of freshwater invertebrates. PREREQ: College biology.

579 Human Ecology (3) The urban ecosystem, approached through study of the major biotic and abiotic components of a local urban community. PREREQ: College biology, ecology, or permission of instructor.

581 Microtechnique (1-3) Introduction to histological and histochemical techniques. PREREQ: Animal histology or permission of instructor.

584 Epidemiology (3) A general study of the epidemiology of both infectious and non-infectious diseases, including industrial and environ-

mentally related health problems. Methods of interviewing and data collecting are also included. PREREQ: BIO 214 or equivalent.

585 Systematic Botany (3) Principles of taxonomy and biosystematics. Selected plant families from tropical and temperate zones. Each student develops proficiency in the use of modern flora and knowledge of the common species of the spring flora of Chester County. PREREQ: College botany or permission of instructor.

587 Systematic Zoology (3) Principles and procedures governing the classification of animals. PREREQ: College biology.

591 Independent Study in Biology I (1-3) Individual research under the guidance of a faculty member. PREREQ: Permission of instructor.

592 Independent Study in Biology II (1-3) Individual research under the guidance of a faculty member. PREREQ: Permission of instructor.

593 Independent Study in Biology III (1-3) Individual research under the guidance of a faculty member. PREREQ: Permission of instructor.

600 Research Report (1-3)

609 Internship in Biological Science (8-16) A full-time or half-time, one semester work study appointment with a commercial, industrial or governmental agency. Student will be supervised jointly by the professional scientist of the agency and a faculty member of the biology department. PREREQ: Approval of the department.

610 Thesis (6)



Chemistry

Dr. Goudy, *Chairperson*

Dr. Fenton and Dr. Moran, *Coordinators of Graduate Studies*

PROFESSORS

Marc L. Durand, Ph.D., *University of New Hampshire*

Robert F. Foery, Ph.D., *University of Iowa*

John Mangravite, Ph.D., *University of New Hampshire*

Francis J. Reynolds, Ph.D., *University of Pennsylvania*

Philip B. Rudnick, Ph.D., *Rutgers—The State University*

William Torop, Ed.D., *University of Pennsylvania*

ASSOCIATE PROFESSORS

John Fenton, Ph.D., *University of Minnesota*

Andrew Goudy, Ph.D., *University of Pittsburgh*

Virgil E. Magnuson, Ph.D., *University of New Hampshire*

Ardis M. Williams, A.M., *Vassar College*

Philip Witonsky, Ph.D., *University of Minnesota*

ASSISTANT PROFESSORS

Michael Moran, Ph.D., *University of Pennsylvania*

Helen G. Reid, Ph.D., *University of New Orleans*

ADJUNCT PROFESSOR

Cliff Woodward, Ph.D., *Pennsylvania State University*

The Department of Chemistry offers a program leading to the Master of Science in chemistry and a Master of Science in clinical chemistry. It also cooperates with the Departments of Geology and Astronomy and Physics in offering a program leading to the Master of Arts in physical science. See Physical Science Program.

MASTER OF SCIENCE IN CHEMISTRY

Admission Requirements

In addition to meeting the general requirements for a degree program at West Chester, applicants must present an undergraduate background including mathematics through calculus, one semester of analytical chemistry, and full-year courses in organic chemistry and physical chemistry.

Degree Requirements

1. Before admission to degree candidacy, each student is required to take four out of five qualifying examinations in the major areas of chemistry (inorganic, analytical, physical, organic, and biochemistry). The four areas are to be selected by the student. At least three of these examinations must be passed. If necessary, they may be retaken once. The student may be required to enroll in appropriate undergraduate courses for no credit in order to prepare for a re-examination. These examinations must be passed before admission to degree candidacy, i.e., prior to the attainment of 15 graduate credits.
2. At the discretion of the department chairperson, Graduate Record Examination scores may be required for purposes of evaluation and guidance.
3. A reading proficiency is required in any one of the following modern languages: German, French, or Russian. The reading test is administered by the Department of Foreign Languages. In place of the modern-language proficiency, a demonstrated proficiency in a computer language (FORTRAN, for example) may be substituted.*
4. The candidate must perform successfully on an oral examination which is required for all options. The oral examination will include general chemistry knowledge but will place emphasis on the area represented by independent study or the research report. The members of the examination committee include the research supervisor, the departmental guidance coordinator, and two other professors.

PROGRAM FOR THE MASTER OF SCIENCE IN CHEMISTRY

30, 33, or 36 Semester Hours

The M.S. in chemistry program consists of a required core of 15 semester hours and a chemistry elective area for which there are three options. All students must complete the core, composed of CHE 511—531—540 and any two of the topics courses (CHE 515—525—533—544—551—575). One semester of CHE 591 must be taken.

Option A (30 semester hours)

This is the thesis program. Beyond the core the candidate takes Independent Study/Thesis (CHE 610) and 9 semester hours of electives.

Option B (33 semester hours)

Beyond the core this option requires Independent Study in (CHE 610) for 6 credits and 12 semester hours of electives.

Option C (36 semester hours)

Under this plan the student completes core requirements and an elective area of 21 semester hours which must include 3 credits in Independent Study (CHE 610).

Under all options the elective area is developed under advisement from chemistry offerings but may include 3 semester hours from another science area or from mathematical sciences.* Until admitted to degree candidacy, students may not undertake independent study.

*A computer science course taken to satisfy the foreign language requirements will not be counted as an elective toward the degree.

MASTER OF SCIENCE IN CLINICAL CHEMISTRY

Admission Requirements

An applicant must meet the general requirements for a degree program at West Chester and must hold a bachelor's degree in chemistry, medical technology, or a closely related field.

Course prerequisites for admission include one semester each of analytical chemistry, biochemistry, physics, clinical chemistry, clinical chemistry laboratory, and physical chemistry. Two semesters of organic chemistry and mathematics through calculus are also required. Several of the above courses may be waived if the applicant has graduated from a four year medical technology program approved by the National Accrediting Agency in the Clinical Laboratory Sciences (NACCLS). Students who do not meet program prerequisites may take required courses upon enrollment. Graduate Record Examination scores may be required prior to acceptance.

Degree Requirements

1. Before admission to candidacy each student must pass a comprehensive examination covering basic concepts of organic and physical chemistry with emphasis in the areas of biochemistry, clinical chemistry, and analytical chemistry. This examination is usually administered after one-half of the student's coursework is completed. If necessary, this examination may be retaken once.
2. The candidate must perform successfully on an oral examination which is required in either program option. The oral examination will include general chemistry knowledge but will place emphasis on the area represented by independent study or the research report. The members of the examination committee include the research supervisor, the departmental graduate coordinator, and two other professors.

Program for the Master of Science in Clinical Chemistry

The program consists of a required core of 21 semester hours. Additional credits needed for the degree (30 or 36) may be pursued under two options.

Core courses: Chemistry 548, 555, 579, 582, 583, 524, 575, 550 (CHE 550—Clinical Chemistry Internship, which may be waived for those students with sufficient clinical laboratory experience).

Option A

Core plus 15 semester hours of electives from chemistry, biology, physics, computer science, or business administration (total hours equal 36). Students wishing to emphasize administration may take the 18 hour business core. This provides a Certificate in Business Administration and also serves as a minor toward the M.S. in clinical chemistry.

Option B

Core plus 3 semester hours of electives from chemistry, biology, physics, computer science or business administration plus research/thesis (6 hours) CHE 610.

COURSE DESCRIPTIONS CHEMISTRY

Symbol: CHE unless otherwise shown CRL
Laboratory

500 Fundamentals of Radioisotope Techniques
(3) Biological, chemical, environmental, and physical effects of nuclear radiation. Radiation detection, instrumentation, and radiotracer

methodology. PREREQ: 1 year of college chemistry and 1 year of college physics.

503 Chemistry of the Environment (3) The chemistry of the atmosphere, hydrosphere, and biosphere. Man's impact on these areas. Not for M.S. in chemistry.

505 Fundamental Topics in Chemistry (2-6)
Basic level elective courses in chemistry for pro-

essional growth. Not for M.S. in chemistry. May be repeated. PREREQ: General chemistry.

508 Industrial Pollution (3) Applications of elementary chemical engineering to the industrial complexities of the environmental processes. Emphasis on unit operations and unit processes applicable to pollution control and abatement.

511 Advanced Inorganic Chemistry I (3) Structure and properties of the elements and their compounds from a theoretical point of view; horizontal, vertical, and diagonal relationships in the periodic table.

515 Topics in Inorganic Chemistry (3) Topics of current interest in inorganic chemistry. Topic to be announced prior to registration.

516 Inorganic Preparations (3) A laboratory course in advanced techniques for the synthesis of inorganic compounds.

517 History of Chemistry (1) The history of chemistry and its predecessors from earliest time to present day.

518 Literature of Chemistry (1) Instruction in the use of a modern chemical library, reference and data acquisition, synthetic procedures and computer data bases. PREREQ: CHE 231.

519 Ethics and Human Values in Science (1) A one semester course for science majors to acquaint students with ethical problems in their professional careers.

525 Topics in Analytical Chemistry (3) Indepth examination of current topics in instrumental or wet chemical analysis. Special emphasis on state-of-the-art development and applications.

527 Electron Microscopy I See ESS 527.

529 Electron Microscopy II See ESS 529.

531 Organic Reaction Mechanisms (3) Theoretical treatment of selected organic reactions. Emphasis on bonding theory, structural relationship, equilibria, and free-energy relationships.

532 Synthetic Organic Chemistry (3) Topics of current interest in synthetic organic chemistry. Topic announced prior to registration.

533 Topics in Organic Chemistry (3) Topics of current interest in organic chemistry. Topic announced prior to registration.

535 Qualitative Organic Analysis (5) Identification of pure organic compounds and mixtures of organic compounds using classical and modern instrumental techniques. Laboratory included.

536 Polymer Chemistry (3) Polymerization kinetics, rheology of polymer melts, crystallization parameters, and monomer reactivity in copolymerization.

540 Chemical Thermodynamics (3) Laws and functions of thermodynamics and their applications: introduction to statistical thermodynamics.

543 Quantum Chemistry (3) Basic quantum chemistry, including the hydrogen atom problem, chemical bonding, spectroscopic concepts, and group theory.

544 Topics in Physical Chemistry (3) Topics of current interest in physical chemistry. Topic announced prior to registration.

548 Clinical Biochemistry (3) A one semester course on the biochemical basis of disease. Case histories are discussed with emphasis on the clinical interpretation of laboratory data. PREREQ: CHE 581.

550 Internship in Chemistry (3-6) A full or part-time work study appointment in a hospital, commercial, governmental or industrial laboratory supervised jointly by an on-site supervisor and chemistry department faculty member. PREREQ: Permission of the department internship committee.

551 Chemistry of Coordination Compounds (3) Principles of complex formation; application of the crystal theory, various complexing agents, and chemical implications of coordinated compounds. PREREQ: CHE 511.

555 Quantitative Clinical Methods (3) A source on the mathematical aspects of clinical laboratory science. Statistics and laboratory uses for computers are stressed. PREREQ: CHE 581.

563 Electrochemistry (3) Principles of electrochemical systems and galvanic cells; electrolytic applications in instrumentation and research. PREREQ: CHE 511.

575 Topics in Biochemistry (3) Topics of current interest in biochemistry. Topic announced prior to registration.

579 Chemical Toxicology (3) A one-semester course in the basic principles of toxicological analysis. Special emphasis will be placed on documentation, sampling, and verification of laboratory materials and results. The environmental and physiological aspects of chemical toxicity will be explored.

581 Clinical Chemistry (3) Analysis of biological fluids. Clinical significance of enzyme, electrolyte, protein, and carbohydrate analysis. Requires permission of instructor or undergraduate preparation in organic chemistry and quantitative analysis. PREREQ: OR CONCURRENT: CHE 571 (Fundamentals of Biochemistry).

CRL-581 Clinical Chemistry Laboratory (2) Lab for CHE 581. Practical experience in analysis of biological fluids for diagnostic parameters. Nature of biological sampling, sample preserva-

tion, methodology, statistics, quality control.
PREREQ: CRL 231 and CRL 321 or equivalents.

582 Advanced Clinical Chemistry (3) A one semester course with emphasis on recent advances in testing modalities, instrumentation, and methodologies in clinical chemistry.
PREREQ: CHE 571, 581.

583 Clinical Chemistry Seminar (2) A course emphasizing the recent literature in clinical chemistry. Student lecture presentations and round table discussions are used. PREREQ: CHE 581.

585 Theory and Practice of Spectrophotometry (4) Lecture and laboratory course with emphasis on research uses of spectrophotometry. Theoretical background and laboratory techniques for understanding and carrying out advanced spectroscopic studies.

591 Seminar (2) Topics of current interest in chemistry.

610 Advanced Independent Study/Thesis Research (3-6)

SCC 570 Science and Human Values (3) Not for M.S. in chemistry.

Any of the following dual level courses (but not more than 6 semester hours of credit) may be taken for graduate credit toward the degree:

504 Foundations of Nutrition (3)
Not for M.S. See CHE 404.*

524 Analytical Chemistry II (3) See CHE 424.*

CRL 524 Analytical Chemistry II Laboratory (2) See CRL 424.*

571 Fundamentals of Biochemistry (3) See CHE 471.*

CRL 571 Experimental Biochemistry (2) See CRL 471.*

*See undergraduate catalog for course descriptions.



Childhood Studies and Reading

Dr. Hasselquist, *Chairperson*

Dr. Christensen, Mr. Grafton, *Assistant Chairpersons*

PROFESSORS

Joseph C. Hall, Ed.D., *Temple University*

E. Riley Holman, Ed.D., *Brigham Young University*

Mary A. Keetz, Ph.D., *University of Pennsylvania*

George W. Maxim, Ph.D., *Pennsylvania State University*

Erminio J. Peta, Ed.D., *Lehigh University*

Carol A. Radich, Ph.D., *University of Maryland*

Carlos R. Ziegler, Ed.D., *Temple University*

ASSOCIATE PROFESSORS

Nona E. Chern, Ed.D., *Temple University*

K. Eleanor Christensen, Ph.D., *University of Delaware*

Edward H. Gibson, Ed.D., *Nova University*

Patricia E. Grasty-Gaines, Ed.D., *Temple University*

James E. Habecker, Ed.D., *University of Pennsylvania*

Ruth B. Petkofsky, Ed.D., *Temple University*

ASSISTANT PROFESSORS

Bernice J. Salup, Ed.D., *Temple University*

Robert J. Szabo, Ed.D., *Lehigh University*

ELEMENTARY EDUCATION:

The department offers the Master of Education degree in elementary education, as well as non-degree programs for teachers working for professional growth and/or credit certification.

Miller Analogies Test

The Miller Analogies Test is required. Scores must be on file within the student's first semester.

Department Pre-Candidacy Requirements

Within the pre-candidacy period (the first 12-15 semester hours) the applicant must:

1. Complete EDF 501 and two EDE courses.
2. Maintain an average of 2.75 overall and 3.00 in elementary education.

Please refer also to "Degree Candidacy and Degree Requirements" under Academic Information.

Students who fail to qualify as degree candidates are classified as non-degree students. (See "Reapplication for Degree Candidacy" under Academic Information.)

The Comprehensive Examination

In order to become eligible for the examination the student must:

1. Be a degree candidate.
2. Complete at least 28 semester hours including all required courses by the end of the semester preceding the examination.
3. Maintain an average of 2.75 overall and 3.00 in elementary education.

The examination is given on the first Saturday in February and the second Saturday in July, unless otherwise announced by the department.

Applications for admission to the comprehensive examination are available from the department and must be filed by December 1 for the February examination and May 1 for the July examination. A candidate who fails the comprehensive examination is permitted to take one re-examination within a two-year period. Upon a second failure, the candidate's future status will be determined by the departmental graduate committee following a comprehensive review of his/her graduate record.

Requirements for the Degree

1. Satisfactory completion of the curriculum as given below. Both the selection and the sequence of courses should be determined in consultation with the appointed advisor.
2. An overall grade point average of at least 2.75 and a grade point average of at least 3.00 in elementary education. NOTE: All courses specific to elementary education are included in computing the grade point average in elementary education. Examples of such courses are LIT 550 and MAT 555.
3. Satisfactory performance on the comprehensive examination.
4. Evidence of certification in elementary education.

MASTER OF EDUCATION IN ELEMENTARY EDUCATION

This may be either a non-thesis program requiring 34 semester hours or a thesis program requiring 30 semester hours.

In either option the candidate must meet a professional education requirement including EDF 501, EDF 510, and EDP 550. Also required in either option is an elementary education area consisting of EDE 548, 549, 553, and an elective in reading or elementary education.

Within the first session of enrollment the student confers with the assigned advisor to determine an appropriate and desirable area of concentration. The remainder of the program will be developed within the selected concentration. The choice of concentrations may be made from (A) areas offered by the Department of Childhood Studies and Reading or (B) areas offered by other departments. These are:

**(A) Elementary Education
Concentration Areas**

Creative Teaching-Learning
Early Childhood Education
Elementary Education (General)
Gifted and Talented
Human Development

Language Arts
Middle School
Open Education
Social Studies

**(B) Concentration Areas in
Other Departments**

Bilingual Education
Children's Literature
Mathematics

Reading
Science
Special Education

MASTER OF EDUCATION IN ELEMENTARY EDUCATION

Non-Thesis Program (34 s.h.)

I. PROFESSIONAL EDUCATION

EDF 501	Methods and Materials of Research and Study for Elementary Education Majors	3	
EDF 510	Educational Foundation	3	
EDP 550	Advanced Educational Psychology	3	9 s.h.

II. ELEMENTARY EDUCATION

EDE 548	Curriculum Theory and Trends of Elementary Education	3	
EDE 549	Theory and Trends in the Language Arts	3	
EDE 553	Child Development and Behavior II	3	
	Elective in Reading and/or Elementary Education	3	12 s.h.

III. AREA OF CONCENTRATION

The 21 credit hours above are required of all degree candidates. 13 s.h.
The remaining 13 credits are to be concentrated in one of the
following areas, to be selected under advisement during the
first session of enrollment:

Courses offered within the department.
Advisement by assigned advisor.

Creative Teaching-Learning
Early Childhood Education
Elementary Education (general)
Gifted and Talented
Human Development
Language Arts
Reading

Courses offered in other departments. Ad-
visement for area of concentration by se-
lected faculty in respective department.

Social Studies
Bilingual Education
Children's Literature
Mathematics
Science
Special Education

Thesis Program (30 semester hours)

Students who wish to pursue the thesis program must consult with the department chairperson or his or her designee not later than the second session of enrollment.

Reading

Through its graduate reading program, the School of Education offers (1) the Master of Education degree with a major in reading, or (2) the Reading Specialist Certification, and (3) the Certificate of Advanced Graduate Studies (CAGS). Students who complete either program 1 or 2 are recommended for Pennsylvania certification as reading specialists.

These programs further prepare candidates to serve in special reading positions and as classroom teachers of reading in elementary or secondary schools.

ADMISSION TO THE DEGREE PROGRAM

1. The student must possess an Instructional I Certificate.
2. The Graduate Record Examination Aptitude Test and/or the Miller Analogies Test is required. Scores must be on file within the student's first semester session.
3. Courses required within the pre-candidacy period are EDR 510, 514 or 515, 516, and EDF 500; and one additional course from the prescribed program.
4. An overall average of 2.75 and a minimum of 3.00 in reading courses must be maintained during the pre-candidacy period.

DEGREE PROGRAM REQUIREMENTS

In addition to meeting degree requirements of the university the candidate must:

1. Successfully complete the reading curriculum and any additional courses which may be required by the reading faculty.
2. Achieve an overall average of at least 2.75 and a minimum of 3.00 in reading courses.
3. Perform satisfactorily on the comprehensive examination in reading. Responsibility for meeting all requirements at the proper time rests with the student.

THE COMPREHENSIVE EXAMINATION

The student is eligible for comprehensive examination upon completion of all prescribed work and the recommendation of the advisor. The examination is given the first Saturday in November, the first Saturday in March, and the second Saturday in July. Application for the examination must be made in writing to the department chairperson by September 1 for the November examination, January 1 for the March examination, and May 1 for the July examination.

Candidates who fail the comprehensive examination are permitted one re-examination within a two-year period. Upon a second failure, candidates are dropped from the degree program.

MASTER OF EDUCATION IN READING

36 semester hours

Professional Education Requirements: EDF 500 and EDF 510 6 s.h.

Area of Concentration Requirements:
EDR 510, 514 or 515, 516, 517, 521, 522, 541 21 s.h.

Area of Concentration Electives:

- Selected, under advisement, from EDR 523, 525, 526, 540, 542, 590 3 s.h.
 *Related Study Requirements: At least one course from Group A
 and one from Group B must be selected under advisement. 6 s.h.
 GROUP A (Language Arts): EDE 522, 543, 548, 549, ENG 592, 593
 GROUP B (Related Areas): EDA 571, EDC 545, EDE 551, EDE 553, EDE 554, EDE 555

READING SPECIALIST CERTIFICATION

30 semester hours

Requirements for the Certification Program:

1. The student must possess an Instructional I Certificate.
2. Courses required within the first 15 hours are EDR 510, 514 or 515, 516, and 517.
3. An overall average of 2.75 and a minimum of 2.88 in reading courses must be maintained.
4. In order to obtain the certificate the student must successfully complete the program shown above under Master of Education in Reading except that the student is not required to take the two courses in professional education.
5. The student must perform successfully on the competency examination.

CERTIFICATE OF ADVANCED GRADUATE STUDY (CAGS)

Childhood Studies and Reading

The Certificate of Advanced Graduate Study (CAGS) is designed for students who already possess a master's degree and who wish to expand their knowledge in a given area or to broaden it to include other areas. Such students normally do not wish to undertake a doctoral program but, at the same time, prefer the guidance and structure offered by a program such as the CAGS.

ADMISSION REQUIREMENTS

A student who wishes to pursue the CAGS must:

1. Possess a master's degree from a reputable institution.
2. Have attained a minimum GPA of 3.00 in a master's degree program.
3. Present three (3) professional letters of recommendation.
4. Score acceptably on the Graduate Record Examination or the Miller Analogies Test.

Acceptance for study toward the CAGS will be determined by the faculty of the Department of Childhood Studies and Reading. However, prior to formal admission to the program, the student is required to develop a proposed plan of study with the supervising committee (major advisor and one additional member) that has been appointed by the Department Chairperson or his/her designee.

PROGRAM

A minimum of 30 semester hours earned beyond the master's degree is required. Each student accepted into the program will pursue a plan of study to meet his/her needs. This plan will be developed with his/her major advisor and have the approval of the student's supervising committee. Previous course work taken will be considered in the development of the student's program. The suggested program will be presented to the departmental graduate committee for approval. Course work may be arranged as follows:

*Courses other than those listed may be substituted for this area provided the student first obtains his/her advisor's approval for the course. If the student fails to obtain the advisor's approval *prior* to registration for the course, then it may not be used to meet any requirements in this area.

- | | |
|---|----------------------|
| 1. Area of Specialization
(Examples: Early Childhood Education, Elementary Education—General, Language Arts, Mathematics, Reading, Science, Social Studies, Gifted Education).
Programs will be individually tailored for each student by an advisor. | 18-24 hours (credit) |
| 2. Course Work in Complementary Areas | 0-6 hours (credit) |
| 3. Seminar in Research | 3 credit hours |
| 4. Research Report | 3 credit hours |

TRANSFER CREDITS

A maximum of six hours of approved transfer credit earned after the master's degree may be applied to the proposed program if the courses complement the area of specialization and if taken within the last three years.

CERTIFICATE OF APPROVAL

Successful completion of the program requires that the student has:

1. Achieved a minimum GPA of 3.25 in all course work in the area of specialization and a minimum GPA of 3.0 in all course work taken outside the School of Education.
2. Successfully passed an oral examination in the area of specialization as well as the research report. All requirements including the research report must be completed before the student will be allowed to take the oral examination.
3. Met all program requirements.
4. Completed the program within six years following the date of the first enrollment.

COURSE DESCRIPTIONS

EARLY CHILDHOOD & ELEMENTARY EDUCATION

Symbol: EDE

502 Introduction to Early Childhood Education (3) A basic course in early childhood education. Emphasis is upon the historical and theoretical bases influencing education of young children.

503 Contemporary Influences in Early Childhood Education (3) Current factors that affect the educational needs of young children and classroom practices reflecting these influences.

504 Early Childhood Programs (3) Model programs in early childhood education, focusing upon curriculum design and implementation in the preschool and primary years.

505 Seminar in Early Childhood Education (3) Selected problems in early childhood education. PREREQ: Permission of instructor.

522 Teaching the Communication Skills (3) Strategies for teaching the language arts. Methods, materials, and resources for organizing creative programs in school settings.

530 Social Studies in Elementary Education (3) Interdisciplinary and multi-cultural strategies for developing concepts, skills, and values in the social studies program.

532 Curriculum and Research in Social Studies (3) Recent research in social studies with emphasis on the theoretical bases for making curriculum

decisions. PREREQ: Permission of instructor.

533 Seminar in Social Studies Education (3) Selected problems in social studies education. PREREQ: Permission of instructor.

543 Creative Expression in the Elementary School (3) Theories and techniques to promote creative thinking and enhance children's creative potential in all areas of the school curriculum.

544 Open Education in the Elementary School (3) Emphasis is placed on how learning occurs in open education. Planning environments and programs for children.

548 Curriculum Theory and Trends in Elementary Education (3) Theoretical frameworks of elementary school curricula; curriculum development and change. To be taken after 15 hours of work.

549 Theory and Trends in the Language Arts (3) Analysis and evaluation of language arts programs including reading in the modern elementary school. PREREQ: EDE 548.

551 Child Development and Behavior I (3) Social, intellectual, emotional, physical, and moral aspects of child development and behavior. Emphasis on personal development of the teacher as a prerequisite to understanding children in the elementary school.

552 The Middle School Child (3) Development, behavior, and specific needs during late childhood and early adolescence (10-15 yrs.); applies

to working with children in the middle school. PREREQ: Recent course in child/human development.

553 Child Development and Behavior II (3) Review of principles of growth and development. Theories of personality development; clues to identifying children with problems; therapies applicable to elementary school children. Case study required. PREREQ: A recent course in child development.

554 The Self Concept (3) Self concept theory and research; implications for development, learning, and behavior; specific application to school settings. PREREQ: Recent course in human development or the equivalent.

555 Self Development and Interpersonal Skills (3) Self development, interpersonal, and group communication skills. Focus on helping relationships in educational settings. PREREQ: Recent course in human development or the equivalent.

556 Seminar in Human Development (3) Critical issues in human development. PREREQ: Permission of instructor.

560 Meeting Individual Needs of Children (3) Discovering each child's needs; providing for individualized learning; identifying problems and their solutions. PREREQ: Recent course work in elementary education and child development.

561 Guidance in the Elementary School (3) Developmental guidance—philosophy, programs, personnel. Guidance role and responsibilities of the teacher in the classroom. PREREQ: Recent course work in elementary education and child development.

565 Effective Classroom Management (3) Dynamics of interpersonal relations in planning and facilitating classroom instruction.

570 Supervision in the Elementary School (3) Concepts and practices in supervision of teachers, student teachers, and aides. PREREQ: Course work in elementary education and child development.

571-589 Workshops in Elementary Education (1-6) Additional course numbers will be assigned as new areas of study are announced. Credits vary. The series presently includes:

- 580 Workshops in Elementary Education
- 581 Workshop in Open Education
- 582 Workshop in Social Studies
- 583 Workshop in Creativity
- 584 Workshop in Early Childhood Education
- 585 Workshop in Language Arts
- 587 Workshop in Affective Education
- 588 Workshop in Gifted and Talented
- 589 Workshop in Teaching Skills to Combat Sexism

590 Independent Study (1-3) Enrollment by permission only; number of credits determined by instructor.

600 Research Report (1-2)

610 Thesis (4-6)

695 Seminar in Elementary Education (3) Selected topics in elementary education. To be taken during semester preceding the taking of the comprehensive examination in elementary education.

Symbol: EDG

542 Creative Thinking: Gifted and Talented (3) A study of the basic theoretical approaches for encouraging the creative potential of gifted and talented learners.

546 Gifted and Talented: Teaching Strategies and Materials (3) Program models, resources, and materials designed to meet the needs of gifted and talented children and youth.

COURSE DESCRIPTIONS

READING

Symbol: EDR

510 Foundations of Reading Instruction K-12 (3) Psychology and pedagogy of reading instruction. The nature of the reading process; the nature of the learner; skill development; instructional strategies. Offered in fall, spring, and summer.

514 Reading in the Content Areas: Elementary (3) The specialized reading skills, reading problems, teaching techniques, and reading activities in content subjects at the elementary level. PREREQ: 510 or permission of instructor. Offered in fall.

515 Reading in the Content Areas: Secondary (3) The specialized reading skills, reading problems, teaching techniques, and reading activities in content subjects at the secondary level. PREREQ: 510 or permission of instructor. Offered in spring.

516 Reading Disabilities (3) Concerned with the nature of reading disability and diagnosis and remediation of reading problems. PREREQ: 510. Offered in fall and summer.

517 Current Practices in Teaching Developmental and Corrective Reading (3) Concerned with developmental and corrective reading instruction. Attention is given to diagnostic procedures and resulting appropriate instruction. PREREQ: 516 or permission of instructor. Offered in fall and spring.

521 Reading Clinic Practicum and Seminar I (3) A laboratory course. Diagnosis of reading difficulties of elementary and secondary students with reading problems. Major attention given to diagnosing corrective cases and writing case reports. PREREQ: 514 or 515; 516. Offered in fall and summer.

522 Reading Clinic Practicum and Seminar II (3) Continuation of 521. Opportunities to develop specific techniques for correcting various types of reading disability cases. PREREQ: 521. Offered in spring and summer.

523 Reading as a Language Process (3) Basic concepts from areas of phonology, morphology, syntax, semantics, sociolinguistics, dialectology, and psychology will be related to the teaching of reading in grades K-12.

525 Reading for the Disadvantaged (3) Historical, cultural, and educational contexts of current issues as they relate to language competency programs, evaluation, and reading instruction for disadvantaged learners.

526 Reading Readiness and Early Childhood Experiences (3) Concerned with children's readiness for initial reading instruction. Emphasis on instructional recommendations and implementations for a range of abilities. PREREQ: EDR 510 or permission of instructor.

540 Seminar in Reading (3) Critical examination of trends, opinions, and current research in the teaching of reading. PREREQ: 516 or permission of instructor.

541 Organization and Operation of Reading Programs: K-12 (3) Practical application of the reading specialist's role in organizing and operating K-12 reading programs. Emphasis on the use of the total school community in meeting individual reading needs. PREREQ: 522 or permission of instructor. Offered in spring and summer.

542 Seminar in Reading Research (3) A seminar in the basic techniques and sources of research in reading. Exposure to significant research in the field. PREREQ: EDF 501 or permission of instructor.

544 Reading for the Gifted/Talented K-12 (3) Reading materials, programs, evaluations, and teaching strategies for the gifted/talented are examined and discussed. Students develop and utilize materials in a classroom situation.

545 Bibliotherapy (3) An introductory course dealing with the basic concepts of bibliotherapy and its use as an adjunct to other therapeutic measures. Directed reading procedures for the solution of various problems are discussed. Students develop and utilize materials and a selective annotated bibliography. PREREQ: Permission of the instructor.

590 Independent Study and Research (1-6) Individual investigation and exploration of related reading research. Topic must be approved by the supervising instructor prior to registration.



Communicative Disorders

Mr. Eberhart, *Chairperson*

Dr. Stigora, *Coordinator of Graduate Studies*

ASSOCIATE PROFESSORS

Lester F. Aungst, Ph.D., *Pennsylvania State University*

Susan Maxwell, M.A., *Ohio University*

Michael S. Weiss, Ph.D., *Purdue University*

ASSISTANT PROFESSORS

Leila B. Alson, M.A., *Ohio University*

John L. Eberhart, M.A., *Syracuse University*

Joseph A. Stigora, Ph.D., *Bowling Green University*

Elena F. Stuart, M.S., *Purdue University*

The Department of Communicative Disorders offers the Master of Arts degree in Speech Pathology. The student may choose a thesis or nonthesis program. Either program is designed to strengthen the knowledge and skill of the practicing speech clinician, to provide the foundation for further graduate study, and to afford opportunity to complete requirements toward professional certification by the American Speech-Language-Hearing Association. Attainment of the master's degree does not necessarily guarantee recommendation for certification.

MASTER OF ARTS IN SPEECH PATHOLOGY

39 Semester Hours

Admission to the Program

In addition to meeting the general requirements for admission to a degree program at West Chester, applicants must:

1. Present an undergraduate background of at least 24 semester hours in the following areas of study: speech and language development, phonetics, introduction to speech disorders, introduction to audiology, basic speech and hearing science, and clinical experience.
2. Present undergraduate transcripts showing at least a 3.00 average in the last 60 hours of study.
3. Demonstrate a reasonable degree of speech and language proficiency.
4. Submit Miller Analogies Test scores for purposes of evaluation and guidance.
5. Submit a log of undergraduate clinical practicum.
6. Submit 3 letters of recommendation.
7. Submit a 250-word essay describing future goals and aspirations.

Admission to Degree Candidacy

1. The applicant may apply for degree candidacy after having completed SPP 501 and two additional departmental graduate courses; application must be made before the student has completed 15 semester hours of graduate work required for the degree.
2. During the pre-candidacy period, the applicant must maintain an overall average of 3.00.
3. The applicant must have demonstrated satisfactory performance in clinical practicum.

Requirements for the Degree

1. The candidate must meet the general university requirements for the master's degree, including completion of all required courses with an overall average of 3.00.
2. The candidate must perform satisfactorily on a comprehensive written and oral examination, which may not be taken before the student's final semester of course work. Those who fail the examination may repeat it once. The interval between the two examinations may not exceed one year.
3. The candidate must complete satisfactorily SPP 501, 502, 508, 523, 524, 526, 535, and 3 semester hours of graduate clinical practicum (SPP 551)*, plus 15 additional semester hours, chosen with advisement, which must include a graduate course in audiology and a graduate course in organic disorders.
4. The student must be in continuous enrollment.

*Although the student may elect more than 3 semester hours of clinical practicum for personal objectives, no more than 3 may be counted toward the degree.

Certification Programs

Candidates for the Master of Arts in speech pathology may be recommended for the Pennsylvania Instructional I Certificate in speech correction upon satisfactory completion of the equivalent of the department's Bachelor of Science in Education curriculum. Students who do not qualify for master's degree candidacy may complete a second bachelor's degree in order to be recommended for the Instructional I certificate. In the Department of Communicative Disorders, "Certification Student" designates either (a) non-degree students who already hold the Instructional I certificate and who are earning the Instructional II certificate, or (b) non-degree students who meet the pre-requisites for admission to the degree program, but who already hold a master's degree or its equivalent in a related field and who wish to meet the requirements for the Certificate of Clinical Competence in Speech Language Pathology issued by the American Speech-Language-Hearing Association.

COURSE DESCRIPTIONS

COMMUNICATIVE DISORDERS

Symbol: SPP

500 Survey of Speech Disorders (3) Description, etiology, and management of communication disorders. Introduction to the field of speech pathology and its interrelationships with other professions. Open to non-majors with no previous coursework in speech pathology. Not open to students with credit for SPP 101 or equivalent.

501 Foundations of Research in Speech Pathology (3) Introduction to the scientific process and to the interpretation and application of research in the speech sciences. A research project outline required.

502 Experimental Phonetics (3) Study of acoustic and physiological mechanisms underlying speech production and perception. Current theoretical models are reviewed and analytical instrumentation demonstrated. Students are provided with laboratory experiences to complement lecture materials.

508 Neurology of the Speech and Hearing Mechanism (3) This course provides the student with information concerning the neuroanatomical and neurophysiological mechanisms underlying the speech and hearing process.

523 Voice Disorders (3) Examination of classification, etiology, diagnosis, and therapy for functional, organic, and psychological voice disorders.

524 Fluency Disorders (3) Consideration of the nature, causes, diagnosis, and treatment of stuttering and related disorders of speech flow. Critical review of pertinent research. PREREQ: Permission of department.

526 Articulation Disorders (3) Theoretical considerations, research findings, and clinical practices concerning disordered speech sound production.

535 Language Disorders of Children (3) Linguistic and neurological aspects of behavior relative to disorders of language in children. Review of etiology, assessment, and treatment. PREREQ: SPP 107 or equivalent.

536 Aphasia (3) Study of the behaviors associated with language disorders in adults. Emphasis on etiologies, symptoms, assessment, and rehabilitative procedures.

543 Therapy for the Hearing Impaired (3) Evaluative and therapeutic materials and methods applicable to the improvement of communication in hard-of-hearing individuals. PREREQ: SPP 346 or equivalent.

546 Aural Rehabilitation (3) Medical, prosthetic, and educational approaches to aural rehabilitation for children and adults. Not open to students with credit for SPP 346 or equivalent. PREREQ: SPP 343 or equivalent.

547 Audiometry (3) Lecture/laboratory course in the measurement of hearing. Not open to students with credit for SPP 347 or equivalent. PREREQ: SPP 343 or equivalent.

549 Advanced Audiology (3) A lecture/laboratory course which explores clinical techniques for the measurement of hearing. Basic measures are reviewed. Advanced differential techniques are studied with some opportunity to develop competence in administering these tests during lab periods. PREREQ: SPP 347 or equivalent.

550 Advanced Diagnostic and Therapeutic Methods in Speech Pathology (3) Current and advanced evaluative methods and materials applicable to the diagnosis and remediation of communication disorders.

551 Graduate Clinical Practicum (3) Supervised practice in the Speech and Hearing Clinic and/or in affiliated clinics. Designed to increase diagnostic and therapeutic skills with children and adults who have communication problems. May be repeated. PREREQ: SPP 351 or equivalent and permission of department.

560 Seminar in Speech Pathology (3) Selected theoretical and clinical areas of speech pathology and related disciplines. Topics vary each semester according to research developments and student needs. **PREREQ:** Permission of instructor.

561 Seminar in Audiology (3) Selected areas in audiology and related disciplines. Topics vary each semester according to developments in research, and student needs. **PREREQ:** Permission of instructor.

569 Equipment Workshop (3) Evaluation, selection, use, and maintenance of electronic aids for the speech and hearing clinician. Demonstration of equipment for diagnosis, therapy and classroom use. Students will have ample opportunity to work with tape recorders, auditory trainers, and special calibration techniques.

573 Administration and Supervision of Speech and Hearing Programs (3) Nature and scope of

supervisory positions in speech and hearing programs. Emphasis on administrative problems.

580 Orofacial Anomalies (3) Comprehensive consideration of the nature, causes, diagnosis, and treatment of communication disorders associated with orofacial anomalies, particularly cleft lip and cleft palate. **PREREQ:** SPP 203 or equivalent, or permission of department.

589 Neuromuscular Disorders (3) Nature, causes, diagnosis, and treatment of communication disorders associated with neuromuscular dysfunction, with particular attention to the cerebral palsies.

590 Independent Study (1-3) Individualized research projects, reports, and/or readings in speech pathology or audiology under faculty supervision. **PREREQ:** Approval of department chairperson.

610 Thesis (1-6)

Computer Science—See Mathematical Sciences

Counselor, Secondary, and Professional Education

Dr. Deischer, *Chairperson*

Dr. Kahn, *Assistant Chairperson, Graduate Studies*

Dr. Cleary, *Assistant Chairperson*

PROFESSORS

Walter E. Buechele, Jr., Ed.D., *Temple University*

Mary E. Cleary, Ed.D., *George Washington University*

Harry H. Deischer, Ed.D., *University of Pennsylvania*

Charles W. Good, Ed.D., *Temple University*

George M. Thomas, Ed.D., *Temple University*

Shirley A. Walters, Ed.D., *Temple University*

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ASSOCIATE PROFESSORS

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Yi-Ming Hsu, Ed.D., *University of Georgia*

Wallace J. Kahn, Ph.D., *University of Maryland*

F. William Leeds, M.A., *University of Pennsylvania*

Reynold D. Paganelli, C.A.S., *Johns Hopkins University*

William J. Rahn, M.Ed., *Temple University*

Jay Silverman, Ph.D., *New York University*

Julian M. Swiren, Ed.D., *Pennsylvania State University*

The Department of Counselor, Secondary, and Professional Education offers a variety of graduate programs leading to professional certification as well as the Master of Education and Master of Science degrees.

COUNSELOR EDUCATION

The Counselor Education Program offers two degree programs. The first is a degree-certification program which leads to the Master of Education and the Educational Specialist I Certificate for elementary school counselors or secondary school counselors.

The second leads to the Master of Science degree for persons interested in counseling in post-secondary and higher education settings.

A handbook describing both programs in greater detail is available from the department's graduate office.

ADMISSION TO THE PROGRAM

Applicants must possess a baccalaureate degree from an approved institution and present an overall undergraduate average of at least 2.5. They must also have achieved an average of 2.75 in at least twelve credits in certain areas of education, psychology, and sociology.

Additional criteria are satisfactory scores on the Miller Analogies Test or Graduate Record Examination (taken within the past ten years) and evidence of personal and professional qualities indicating a potential for success in the counselor education programs.

DEGREE REQUIREMENTS

Upon meeting admission criteria, students are accepted for Competency Area I, and during this phase, are evaluated for academic achievement and interpersonal relationship skills. Upon successful completion of Competency Area I and departmental recommendations, students become degree candidates for the remainder of the program, which encompasses advanced work and field experiences. Upon completion of the prescribed work and advisor's recommendation, candidates must undertake a comprehensive examination. The degree being pursued will be granted only when the student has met the standards of the Department of Counselor, Secondary, and Professional Education. Students desiring the degree without certification may take a 3 credit elective under advisement in lieu of the practicum (EDC 590 or EDC 591).

Certification

In order to obtain the Educational Specialist I Certificate, the student must successfully complete the required practicum in an approved secondary or elementary school. This course provides opportunity for the student to work closely with a professional counselor in a public school under supervision of the faculty of West Chester University. The certificate is issued on the basis of the program approval status of the counselor education program at the university as granted by the Pennsylvania Department of Education.

MASTER EDUCATION: ELEMENTARY SCHOOL COUNSELING OPTION

Dr. Kahn, *Program Coordinator*

36-42 Semester Hours

Competency Area I: EDC 503, 567, 571, EDF 502	12 s.h.
Competency Area II: EDC 520, 540, 556, 572, 574	15 s.h.
Competency Area III: EDC 585, 590, EDF 510 or EDF 589	9 s.h.
Complementary coursework (EDA 500 or equivalent required)	3-9 s.h.

MASTER OF EDUCATION: SECONDARY SCHOOL COUNSELING OPTION

Dr. Greenberg, *Program Coordinator*

36-42 Semester Hours

Competency Area I: EDC 503, 567, 571, EDF 502	12 s.h.
Competency Area II: EDC 520, 540, 556, 573, 575	15 s.h.
Competency Area III: EDC 585, 591, EDF 510 or EDF 589	9 s.h.
Complementary coursework	3-9 s.h.

MASTER OF SCIENCE: HIGHER EDUCATION COUNSELING OPTION

36-42 Semester Hours

Competency Area I: EDF 502, EDC 530, 531, 540, 567	15 s.h.
Competency Area II: EDC 556, 578, 592, 593	12 s.h.
Competency Area III: Any two courses selected under advisement from PSY 505, 506, 509, 512, 529, 550	6 s.h.
Complementary coursework	3-9 s.h.

COURSE DESCRIPTIONS COUNSELOR EDUCATION

Symbol: EDC

503 Introduction to Guidance Services (3) Historical development, philosophical foundations and determinants of guidance services in contemporary elementary and secondary education. Special services, testing, group and individual counseling other elements. Guidance as a profession; ethics; current developments and trends.

520 Counseling for Human Differences (3) Examination of differences manifested by individuals. The purpose of the examination is to prepare counselors for designing counseling strategies appropriate to the uniqueness of the client.

530 The College Student (3) In the face of increasing demands for relevance, flexibility, and vitality in the college community, workers in higher education need to know contemporary students. Hence this exploration of several aspects of the life and work of today's young adults.

531 Introduction to Counseling in Higher Education (3) Introduction to the type of counseling services which are provided in higher education and to the settings in which these take place.

540 Assessment Methods (3) Emphasis is on the test and non-test assessment of intelligence, achievement, special abilities, aptitudes including concepts such as reliability, validity, standardization. Elementary and secondary applications stressed.

545 Psychometric Interpretation (3) A survey course involving the use of psychometrics as the vehicle for the diagnosis of learning problems. Test interpretation and reporting are emphasized.

556 Career Development Theories and Practices (3) Theories and techniques relating to career development in children, adolescents, and adults. Career development programming within the context of a systems approach is stressed.

567 Group Dynamics (3) This course in group process focuses on the identification of the implicit and explicit role functions of the group member and the group leader. The recognition and awareness of one's behavior with multiple feedback sources is of primary concern. To initiate, develop, and master relationships in a group setting will be the major objective of this experience.

568 The Professional Counselor in the Elementary School (3) Role, responsibilities, and practices of the contemporary elementary school counselor. Development of the guidance program; relationship to curricula; position of the counselor with respect to administration, parents, children, and teachers.

569 The Professional Counselor in the Secondary School (3) Role, responsibilities, and practice of the contemporary secondary school counselor. Referral resources, parental conference techniques, relationship with administration and staff, curricula; administrative aspects of the guidance program.

571 Theories of Counseling (3) The basic theories of counseling, with emphasis on historical and philosophical origins. Historical antecedents of each theory, and evaluation of the potential of each theory as a viable approach for school counselors.

572 Counseling and Consultative Techniques in the Elementary School (3) Practical application of the basic theories of counseling in the elementary school setting. Application of counseling and consultative techniques in simulated settings within the elementary school framework. Counselor relationships with pupils, teachers, administrators, pupil personnel staff and community resources is emphasized.

573 Counseling and Consultative Techniques in the Secondary School (3) Practical application of the basic theories of counseling in the secondary school setting. Application of counseling and consultative techniques in simulated secondary school settings, with emphasis on the pupil, teacher, administration, parents, staff, and community resources.

574 Group Procedures in the Elementary School (3) Emphasis is on mastering the basic theories and techniques appropriate to group procedures in the elementary school. Exposure to planning, implementing, and evaluating group activities.

575 Group Procedures in the Secondary School (3) Mastery of theories and techniques basic to planning and implementing group activities in the secondary school. Evaluation of group activities is also stressed.

578 Counseling Techniques with Adults (3) A pre-practicum experience in counseling adults. Application of principles and practices; preparation and techniques for group counseling.

579 Group Procedures with Adults (3) Techniques for planning and implementation of group procedures applicable to adults in educational institutions. Topics include group counseling, group guidance, multiple counseling, problem-solving and decision-making, task group facilitation, conflict mediation, group process and outcome evaluation, and the legal/ethical implications of group work. Each student is required to conduct a group counseling experience.

585 Contemporary Issues and Trends in Guidance (3) Contemporary issues and current trends in school guidance. The student evaluates basic positions and integrates them into the prospective role of a school counselor.

590 Practicum in Elementary Guidance (3) Supervised practice in an approved elementary school. In addition to work under the direction of a professional counselor in the school setting, the student meets on campus with the practicum supervisor for intensive seminar activities.

591 Practicum in Secondary Guidance (3) Supervised practice in an approved secondary school. The student works under the direction of a professional counselor in the school setting, and meets on campus with the practicum supervisor for intensive seminar activities.

592 Practicum in Higher Education Counseling

1 (3) Supervised counseling experiences in multiple settings within the higher education system. A related on-campus seminar is included.

593 Advanced Practicum in Guidance and Counseling (3) Intensive supervised counseling experience in an approved higher education setting. The practicum consists of an on- and off-campus experience.

599 Independent Study (1-3) Independent research and study under the direction of a faculty member. PREREQ: Permission of department chairperson and instructor.

SECONDARY EDUCATION AND PROFESSIONAL STUDIES

The Secondary Education and Professional Studies Program is responsible for the professional courses offered for certification on the secondary level and in the Master of Education degree programs having academic concentrations. The department also offers other professional course work required in all M.Ed. programs and some courses designed for election by educators and others who wish to develop new insights and/or to strengthen professional skills.

In addition the department offers the degree of Master of Education in Secondary Education.

MASTER OF EDUCATION

(Secondary Education—Academic Subject Majors)

The Master of Education program is offered with academic concentrations in English, French, German, Latin, Spanish, biology, mathematics, and social science (with concentration in history). This program is offered cooperatively by the School of Education and the Faculty of Arts and Sciences. The academic requirements for each concentration are found under the respective department.

This degree affords students the opportunity to strengthen their knowledge in the major subject matter field, as well as their professional knowledge and competence.

Students earning degrees in this program must be advised both by the department of the subject field and by the Department of Counselor, Secondary, and Professional Education. It is the responsibility of the students to arrange for conferences with both departments in planning their programs.

REQUIREMENTS FOR THE MASTER OF EDUCATION

(Secondary Education—Academic Subject Majors)

36 Semester Hours

- | | | |
|----|---|---------|
| I. | Professional Education Requirements* | 12 s.h. |
| | A. EDF 510 Educational Foundations (3) | |
| | B. A minimum of one course from each of the following groups: | |
| | Group 1 | |
| | EDF 516 Resource Allocation in the Schools (3) | |
| | EDF 520 Comparative Education (3) | |
| | EDF 580 History of American Education (3) | |
| | EDF 581 Philosophy of Education (3) | |
| | EDF 582 Seminar in the History of the Problems of Education (3) | |
| | EDF 589 Sociological Foundations of Education (3) | |

*Chosen in conference with the secondary education and academic advisors according to the needs of the student.

Group 2

EDF 503	The Emerging Curriculum (3)
EDF 507	Values Clarification in Human Relations (3)
EDF 509	Contemporary Teaching Trends (3)
EDP 531	Principles of Educational Testing (3)
EDP 550	Advanced Educational Psychology (3)
EDP 557	Essentials of Learning (3)
EDP 559	Constructing and Evaluating Behavioral Objectives (3)
EDP 560	Behavior Modification (3)
EDP 569	Adolescent Development and Learning (3)
EDS 524	Supervision of Student Teaching (3)
EDU 502	Human Relations in the School and School and Community (3)

Group 3

EDC 567	Group Dynamics (3)
EDF 504	Middle School Workshop (3)
EDF 505	Individually Prescribed Instruction (3)
EDF 506	Design and Use of Individualized Learning Packages (3)
EDF 570	The Community/Junior College (3)
EDF 590	School Law (3)
EDS 502	Secondary School Curriculum (3)
EDU 501	Curricular Adaptations for the Disadvantaged (3)

- II. Subject Matter Concentration Requirements 20-22 s.h.
 A. Methods and Materials of Research (2-3)
 B. Academic Subject (18-20)
 (See respective academic department for details)
- III. Electives (Professional or Academic)* 0-4 s.h.

COMPREHENSIVE EXAMINATIONS

The student must perform satisfactorily on the final comprehensive examinations covering the subject-matter concentration and the professional-education requirements.

MASTER OF EDUCATION IN SECONDARY EDUCATION

Dr. Thomas, *Program Coordinator*

36 Semester Hours

This program provides another option within the Master of Education, shown immediately above, and is designed primarily to strengthen the professional knowledge, skills, and understandings of the graduate student and of teachers in service, and to make their preparation more relevant to a variety of educational situations. It also provides the professional background for dealing effectively with problems encountered in secondary schools. Through its 15 semester-hour elective area, the program affords students the opportunity to strengthen their knowledge in the subject-matter field.

Admission to the Program

In addition to meeting admission requirements of the college the student must:

1. Be approved by the Department of Counselor, Secondary, and Professional Education for graduate work.
2. Attain an acceptable score on the Graduate Record Examination or the Miller Analogies Test.

*Chosen in conference with the secondary education and academic advisors according to the needs of the student.

It is strongly recommended that the applicant have a valid teaching certificate. Applicants whose certification is not in secondary education may, at the department chairperson's discretion, be required to take course work beyond the minimum semester-hour requirements for the degree.

Upon admission, students will be assigned advisors who will help them to outline an appropriate program. All work for the program must be approved by the advisor and the departmental graduate committee.

Requirements for Admission to Degree Candidacy

During the pre-candidacy period the student must:

1. Attain full status, if admission status to the program was provisional.
2. Complete these required courses: EDF 500, 510, and EDP 550.
3. Achieve a minimum overall average of 2.75 and a minimum average of 3.00 in the required courses in Area One or Area Two.
4. Show evidence of academic, personal, and professional qualities which satisfy the advisor and the departmental graduate committee.

Comprehensive Examination

Students must perform satisfactorily on a written comprehensive examination, which is given at least once in each semester and in regular session of summer. The examination is always given at 6:00 p.m. on Tuesday of the second week of the semester or session.

Application forms for the comprehensive examination are available from the department and must be filed with the department by December 1 for spring semester, May 1 for regular session, and July 14 for fall semester.

To be eligible the students must have:

1. Taken the required courses: EDF 500, 510 and EDP 550.
2. Completed 28 semester hours of work including the 9 semester hours of required courses and 12 semester hours from Area One or Area Two.
3. Attained a minimum overall average of 2.75 and a minimum average of 3.00 in the required courses and the courses in Area One or Area Two.
4. Received their advisors' recommendations and the approval of the departmental graduate committee.

Students who fail the comprehensive examination are allowed a second attempt. A second failure terminates candidacy.

REQUIREMENTS FOR THE MASTER OF EDUCATION IN SECONDARY EDUCATION

36 Semester Hours

- I. Required Courses: EDF 500, 510, EDP 550—9 semester hours
- II. Area of Concentration Requirements: A minimum of 12 semester hours must be selected from one of the following two areas:
 - A. Area One: EDF 515, 516, 520, 570, 580, 581, 582, 589, 590
 - B. Area Two: EDF 503, EDF 504, EDF 505, EDF 506, EDF 507, EDF 509, EDP 557, EDP 559, EDP 560, EDP 569, EDS 502, EDS 524, EDU 501.
- III. Electives: 15 semester hours. The electives may be from courses in Area One and Area Two above, or from courses in the student's teaching field. They may also be a combination of both.

COURSE DESCRIPTIONS**FOUNDATIONS**

Symbol: EDF

500 Methods and Materials of Research in Education (3) Historical, descriptive, and experimental methods of research. Methods for locating, evaluating, interpreting, and reporting research data. Each student prepares a research prospectus. Offered every semester.

501 Methods and Materials of Research and Study for Elementary Education Majors (3) Historical, descriptive, and experimental methods of research. Methods for locating, evaluating, interpreting, and reporting research data. Introduction to graduate study for elementary majors. Offered every semester.

502 Methods and Materials of Research for Counselor Education Majors (3) Designed to enable the counselor to read experimental, quasi-experimental, descriptive and correlational research reported in the professional journals. Both univariate and multivariate designs are emphasized. Offered every semester.

503 The Emerging Curriculum (3) Curriculum trends, beginning in 1951, for grades kindergarten through 12 by means of three comprehensive topics: (1) the curriculum reform movement, (2) emerging curriculum theory and practice, and (3) the educational reform movement. Offered in summer.

504 Middle School Workshop (3) Philosophy, administration, curriculum, staff, and facilities necessary for the most efficient educational experience in the intermediate levels of school. Offered in summer.

505 Individually Prescribed Instruction (3) Individually prescribed instructional techniques as applied in the classroom and intensive learning centers. Techniques of academic diagnosis, prescription production, and electronic learning. Students will have an opportunity to work directly with hardware and software components of an intensive learning center. (May be arranged as a workshop.) Offered in spring.

506 Design and Use of Individualized Learning Packages (3) A review of commercially available individualized learning activity packages which permit the students to progress through a learning continuum at their own pace. The student will be required to design and construct an individualized learning package in his or her teaching area.

507 Values Clarification in Human Relations (3) Knowledge of the theories of the values clarification processes as defined by Simon and others. Skills in application of the values clarification processes in personal decisions, in the

classroom, and in society. (May be arranged as a workshop or as modularized independent study.) Offered in summer.

509 Contemporary Teaching Trends (3) Team teaching, programmed instruction, and various media of communication in the elementary and secondary schools are evaluated. Effective adaptation to newer practices is emphasized. Offered in summer.

510 Educational Foundations (3) History of education, integrated with educational philosophy and thought; the long evolution of education theory and issues. Offered every semester.

515 Federal and State Role in Education (3) The past, current, and future role of the federal and state governments in education in the United States. Emphasis on the applications to the Commonwealth of Pennsylvania. Impact of federal legislation since 1958. Offered in fall.

516 Resource Allocation in the Schools (3) The relationship between the American economy and the efficient allocation of resources within school systems will be examined. Designed for teachers, administrators, school board members, and parents.

520 Comparative Education (3) Major problems of education in a number of other countries are related to similar problems in the United States. Contrasting purposes and philosophies and differences in organization and administration are analyzed. Offered in fall.

570 The Community/Junior College (3) An analysis of the programs, problems, and students of a two-year college. Emphasis on the development, special philosophies, and current issues relating to the community or junior college. Designed for students preparing to be teachers and/or administrators in these colleges. Offered in spring.

580 History of American Education (3) Nature and direction of American education, studied through individual and group research. Offered in fall.

581 Philosophy of Education (3) Selected philosophies and their influence on educational principles and practices in a democratic social order. Offered in spring.

582 Seminar in the History of the Problems of Education (3) Historical study of the recurrent problems of education and their solutions. Implications of these solutions for contemporary American educational problems.

589 Sociological Foundations of Education (3) Study of the socio-cultural influences on the structure of American educational institutions.

590 School Law (3) Legal structure for educational organization on state, intermediate, and local levels. Legal status of the board of education; legal responsibilities of the teacher; legal responsibilities between the board of education and the student. Offered in summer.

599 Workshop in Professional Education (3)

EDUCATIONAL PSYCHOLOGY

Symbol: EDP

531 Principles of Educational Testing (3) Designed to prepare teachers with the skills important in the three areas of educational testing; teacher-made tests (objective and essay); computerized programs for grading and reporting results and for improving the test quality through item analysis procedure; and the evaluation of the psychometric characteristics of standardized tests. PREREQ: EDP 351 or special permission of instructor. Offered in spring and summer.

550 Advanced Educational Psychology (3) Processes by which skills, understanding, concepts, and ideals are acquired; teaching practices in relation to basic research concerning learning; similarities and differences in theories of learning. PREREQ: A course in educational psychology. EDF 500. Offered every semester.

557 Essentials of Learning (3) Study of the applications of learning theory to classroom teaching with emphasis on those principles derived from classical and operant conditioning. Retention and transfer of learning also considered. Offered in fall.

559 Constructing and Evaluating Behavioral Objectives (3) Consideration and evaluation of behavioral objectives. Students write and evaluate their own objectives under individual guidance. (May be arranged as a workshop.)

560 Behavior Modification (3) Study and implementation of principles of classical and oper-

ant conditioning to the modification of student behavior in residential and educational settings. Emphasis on such areas as classroom discipline, student values, and student study habits. (May be arranged as a workshop.) Offered in summer.

569 Adolescent Development and Learning (3) Mental, physical, emotional, and social development and behavior of the adolescent with emphasis on various types of learning. Case studies are used. Offered in fall.

599 Workshop in Educational Psychology (3)

SECONDARY EDUCATION

Symbol: EDS

502 Secondary School Curriculum (3) Current practices and trends in reorganizing the secondary school curriculum in the major academic areas. The various integrating techniques. Curriculum development. Offered in spring.

524 Supervision of Student Teaching (3) Designed for teachers who cooperate or expect to cooperate in West Chester's student teaching program. Basic principles, practices, materials, and resources for an effective student teaching program. PREREQ: Certification for teaching.

525 Educational Supervision I (3) School organization, role of the supervisor, staff selection and evaluation, improvement of instruction, and interpersonal communication skill processes.

526 Educational Supervision II (3) Laws, policies, and regulations related to education; budgeting and finance; curricular development; and development of in-service programs.

590 Independent Study (1-3) Enrollment by permission only; number of credits determined by department.

599 Workshop in Secondary Education (3)

Educational Research

Dr. Hsu, *Program Coordinator*

The School of Education offers a degree program leading to the Master of Science in educational research. Designed primarily for those desiring research positions in local school districts, the degree is also appropriate for research positions in colleges and universities, community colleges, governmental agencies, regional educational laboratories, and industry.

Admission to Degree Program

The applicant will be admitted to the program on the basis of:

1. A minimum over-all average of 2.50 in undergraduate studies and 2.75 in the major field.
2. Graduate Record Examination Aptitude Test.
3. Personal interview with the coordinator of the program.

Any candidate admitted to graduate study, but not to the degree program in educational research, may take RES courses with permission of the coordinator. There is no guarantee that courses taken by a non-degree student may later satisfy degree requirements for the M.S. in educational research.

Requirements for Admission to Degree Candidacy

Upon completion of 12 semester hours, which must include PSY 501 (Introductory Statistics for the Behavioral Science) and EDF 500 (Methods and Materials of Research in Education), the candidates will be advanced to degree candidacy provided they have maintained a minimum average of 3.00 and passed a qualifying examination.

The Internship

After mastery of the tool courses (PSY 501, EDF 500, PSY 502, and RES 520), students will serve an internship with an outside agency or in the Office of Institutional Research conducting educational research. During this period they will utilize the skills they have developed to design and conduct a research project under the joint supervision of university and/or host institution personnel.

The Comprehensive Examination

To be eligible for the comprehensive examination the candidate must:

1. Have completed at least 28 semester hours and all tool courses prior to the semester in which the examination is taken.
2. Have maintained an overall average of at least 3.00.

Candidates must indicate by letter their intention to take the examination. The coordinator should receive this letter within the first ten days of the semester in which the candidate desires the examination.

Candidates who fail the comprehensive examination are permitted one re-examination after an interval of at least one semester but not more than two years.

Requirements for the Degree

1. Satisfactory completion of the curriculum outlined below.
2. An overall average of 3.00 in graduate courses taken in the degree program.

3. Satisfactory performance on the comprehensive examination.
4. Completion of research report or master's thesis approved by the coordinator.

Master of Science in Educational Research

- EDF 510 Educational Foundations (3)
 EDP 531 Principles of Educational Testing (3)
 EDC 540 Assessment Methods (3)
 PSY 501 Introductory Statistics for the Behavioral Sciences (3)
 EDF 500 Methods and Materials of Educational Research (3)
 PSY 502 Advanced Statistics for the Behavioral Sciences (3)
 RES 520 Research Design (3)
 CSC 501 Introduction to Computers (3)
 EDP 550 Advanced Educational Psychology (3)
 RES 590 Proposal Writing in Educational Research (3)
 RES 592 Internship Program in Educational Research (3)
 Optional: RES 600 Research Report (3) plus 3-credit elective or
 RES 610 Thesis (3-6)

Elective courses:

- CSC 550 Computers in Education (3)
 CSC 510 Computer Programming and Numerical Methods (3)
 EDP 540 Methods of Program Evaluation (3)
 Others to be determined by program coordinator.

COURSE DESCRIPTIONS

EDUCATIONAL RESEARCH

Symbol: RES

520 Research Design (3) Principles for efficient design of experiments and other types of observational programs. Sampling techniques, methods of analysis, threats to valid inference. PREREQ: PSY 501.

590 Proposal Writing in Educational Research (1-3) Research project, reports, readings in educational research. PREREQ: Coordinator's approval.

592 Internship Program in Educational Research (3) Opportunity for students to design, conduct, and analyze a study and to prepare a report of the research. The internship is served in local educational agencies, county offices, federal project centers, the Pennsylvania Department of Education, or other research environments. The intern is supervised by both host and university personnel.

600 Research Report (3)

610 Thesis (3)

Environmental Education

Mr. John Holingjak, *Coordinator*

COURSE DESCRIPTIONS

ENVIRONMENTAL EDUCATION

Symbol: EDO

505 Conservation Education Curriculum (K-12) (3) Conservation education as it exists in the present school curriculum and ways to integrate conservation into elementary and secondary school disciplines. Characteristics, interrelationships, and uses of our natural resources, problems and policies of industrial management in

conservation as they are related to the school curriculum.

510 Methods in Conservation Education (3) Basic concepts and practices of conservation and outdoor education and their role in the school program.

511 Environmental Education Workshop (3) A field-centered learning experience. Designed to integrate the wide range of backgrounds and interests among the participants. Based on West Chester campus and/or the campuses of other universities.

515 History of Conservation (3) Development of the conservation movement in the U.S. with

emphasis on the progressive adaptation of conservation to our changing social and economic order.

520 Organization and Administration of Outdoor Education (3) Basic concepts of outdoor education; the role of outdoor education in the

school program; the initiation and administration of outdoor education.

525 Independent Studies in Environmental Education (3) Special research projects, reports, readings in conservation and outdoor education.
PREREQ: Permission of coordinator.

Urban Education

Mr. Leeds, *Coordinator*

Symbol: EDU

501 Curricular Adaptations for the Disadvantaged (3) Curricular innovations which attempt to aid the culturally disadvantaged in developing skills necessary for maximal personal adjustment to society. Survey of urban problems and their relationships to inner-city schools.

502 Human Relations in the School and Community (3) Intensive study of the inner-city community and its close relationship with the school society. Analysis of prejudice and its implication of community and school power structures.

590 Independent Study (1-3)

599 Workshop in Urban Education (3)



Criminal Justice

Mr. Anderson, *Chairperson*

Dr. Seidel, *Coordinator of Graduate Studies*

PROFESSOR

Thomas J. Francella, J.D., *University of Baltimore*

ASSOCIATE PROFESSORS

Harold W. Metz, Ed.D., *West Virginia University*

David W. Patterson, Ph.D., *Florida State University*

Janet C. Seidel, Ed.D., *Temple University*

ASSISTANT PROFESSOR

William B. Anderson, Jr., B.A., *Pennsylvania State University*

MASTER OF SCIENCE IN CRIMINAL JUSTICE

The Department of Criminal Justice offers a program leading to the Master of Science in criminal justice with areas of concentrations in (1) Law Enforcement, (2) Corrections, (3) Management, and (4) Education. The program consists of 36 semester hours including the following requirements.

1. Required Courses

12 s.h.

a. CRJ 508

b. Choose any three of the following four courses:

CRJ 500, 502, 504, 506

2. Area of Concentration 12 s.h.
 - a. Law Enforcement: CRJ 520, 522, 524, 600
 - b. Corrections: CRJ 524, 530, 532, 600
 - c. Management: CRJ 506, 510, 512, 600
 - d. Education: CRJ 500, 524, 540, 600
3. Electives 12 s.h.

ADMISSION REQUIREMENTS

All candidates must meet the general requirements for admission to a graduate degree program at West Chester University. All candidates must apply through the graduate office. Upon receipt of all necessary credentials, the graduate office will forward the application materials to the criminal justice department for further consideration.

DEGREE REQUIREMENTS

The following requirements must be met by all candidates prior to receiving the Master of Science degree in criminal justice.

1. The candidate must submit an acceptable score on the Miller Analogies Test taken at or before the satisfactory completion of six semester hours of course work.
2. The candidate must apply to be admitted to candidacy after the completion of twelve to fifteen hours of course work.
3. The candidate must pass a comprehensive written examination after the completion of thirty semester hours of course work.
4. The candidate must complete a minimum of thirty-six semester hours of course work with a cumulative average of 3.0 (based on a 4.0 system).

COURSE DESCRIPTIONS

CRIMINAL JUSTICE

Symbol: CRJ

500 History and Philosophy of Law and Justice

(3) This course is intended to: (a) aid the beginning graduate student in understanding the historical and philosophical influences upon the American criminal justice system; (2) introduce the student to a broad range of individuals who, over a period of 2,000 years, have made significant contributions to the formulation and process of justice; and (3) examine and analyze various other systems of criminal justice found in divergent and dissimilar cultures.

502 Conflicts in the Criminal Justice System (3)

Conflicting views of participants in the criminal justice system from offense to release are explored. Analysis of the distinctive individual statements and views of victims, investigators, prosecution, defense counsel, judges, penologists, religio-psychiatric figures, convicted persons, and the general public.

504 Resolution of Internal Personal Conflicts

(3) A survey course which reviews current methods of dissolving and resolving internal personal conflicts. These include transactional analysis, transcendental meditation, reality therapy, and behavior modification. Students will be introduced to theory and demonstration.

506 Problems in Management and Administration (3)

This course is intended to aid in the instruction of graduate students who are potential candidates for future administrative positions. Its objective is neither to present a new approach to the field nor to support an existing one; rather, it is to provide the student with a well-rounded view of the subject and to lay the ground work for further study. This is done by bringing together the most appropriate concepts from the various approaches to management, as well as from other disciplines, that have contributed to a fuller understanding of the subject.

508 Research Design and Analysis (3)

Emphasis upon social research processes: problem identification; data collection and use; application of statistical procedures and computer techniques; hypothesis testing and problem resolution within the framework of applied social planning and decision-making.

510 Criminal Justice Planning (3)

This course is intended to aid in the instruction of graduate students who are potential candidates for future planning, evaluation or administrative positions. Given the newness of criminal justice planning, this course represents a beginning effort at a comprehensive discussion and review of justice system planning and evaluation. A good deal of time is devoted to incremental planning and the development of more useful plans through a

process of successive approximations, in which plans are developed, tried out, and modified in the light of new experience.

512 Budget Research and Analysis (3) This course is intended to aid in the instruction of graduate students who presently hold administrative positions or who are potential candidates for such positions. The course represents a beginning effort at a comprehensive discussion and review of accounting, budgeting, and statistical principles and procedures. A good deal of time is devoted to zero-based budgeting and the application of the computer in decision-making.

520 Major Case Management (3) Management of investigative and administrative techniques in major crimes. Emphasizes management for maximized cost effectiveness in deployment of assets. Students will analyze and identify techniques as demonstrated in case examples. Focus placed on early recognition of crime dimensions for precise application of available personnel, equipment, and money. Control and application of finite resources is examined in relation to solution.

522 Official Corruption (3) This course analyzes the usually nonviolent criminal conduct variously described as white collar crime, official corruption, systematic crime, or violations of trust, that is characterized by calculation, deceit, and personal enrichment. Examples from industry and government (including the criminal justice system) are included.

524 Law and Regulation of the Youthful Offender (3) This course will bring together the leading cases that have reached the Supreme Court, as well as other important lower federal and state court decisions on the juvenile justice process.

530 Interviewing & Counseling the Offender (3) Techniques of counseling applicable to law enforcement and corrections officers. Areas of study include the initial interview, interrogation, handling the informer, manipulative behavior of offenders, report writing, and exit interview. Role playing and sociodrama are used.

532 Offender and Staff Rights and Responsibilities (3) A course designed to provide the people who are involved in the correctional process with a basic introduction into the emerging field of law in this area. Encourages understanding of rights and responsibilities of the incarcerated offender and the administrative staff.

540 Legal Studies in the Schools (3) To provide an understanding of practical law which will be of use to students in their every day life, and to develop a more positive attitude on the part of students as citizens toward the role that law plays in the American society. To improve ana-

lytical skills and promote critical thinking, and to decrease anti-social behavior by teaching "preventive law."

560 Notable Criminal Cases (3) Selected factual accounts of criminality and criminal behavior over the past 75 years are analyzed. Selection is based on significance and instructional quality of the account, and while primarily devoted to the United States, cases include one classic misfunction of another country. Course is designed, through reading and class analysis, to illuminate a wide spectrum of specific criminal conduct and the related investigative and judicial responses.

566 Survey of the Correctional Field (3) The study of federal, state, and local correctional systems, including historical perspectives, theoretical assumptions, and major changes recommended by the National Advisory Commission and the President's Task Force. Opportunities will be provided to visit institutions and agencies and participate in discussions with administrative personnel within the system.

572 Instruments in the Detection of Deception (3) A survey of polygraph development and its use from the early 1900's to the present. Covers current legislation regulating polygraph use and measures for self-regulation adopted by local, state and federal agencies. Illustrates proper and improper use of the polygraph through case examples. Demonstrates polygraph technique in a classroom/laboratory setting. Other instruments measuring voice stress are described, as are the legal problems connected with their use.

590 Practicum (6) A field experience (internship) program for pre-service students only.

599 Independent Studies in Criminal Justice (1-3) Research projects, reports, and readings in criminal justice. Approval of department chairperson.

600 Seminar (3) Each graduate student will be expected to participate in a seminar in his/her area of concentration. The end result of this seminar will be a completed research paper evaluated on the basis of: (1) selection of topic, (2) quality of research, and (3) oral presentation. PREREQ: CRJ 508.

610 Thesis (6) Bound and shelved in the library, the thesis stands as an example of the student's ability to plan, organize, and direct a research effort designed to discover, develop, or verify knowledge.

The Department of Criminal Justice has approved the following undergraduate courses for graduate credit when scheduled with the approval of the student's advisor and/or department chairperson: CRJ 430, 450, 451, 470, 496.

Earth Science—See Geology and Astronomy

Economics

Dr. T. Naggar, *Chairperson*

PROFESSORS

Patrick J. M. Sylvester, Ph.D. *Bryn Mawr College*

ASSOCIATE PROFESSOR

Phillip DeMoss, Ph.D., *Kansas State University*

Dan Mohan, Ph.D., *Rutgers University*

Tahany Naggar, Ph.D., *University of Oklahoma*

ASSISTANT PROFESSORS

Kevin Dunleavy, Ph.D., *Duke University*

The Department of Economics has no master's degree program but offers the following courses. They are particularly appropriate for the M.A. in social science, an interdisciplinary program.

COURSE DESCRIPTIONS

ECONOMICS

Symbol: ECO

503 Economic Role of Women (3) Statistical information pertaining to one of the most important changes in American economy in this century is the increase in the number of working women. Job related aspects such as the historical pattern, labor force participation, education, earnings, labor supply, and sex discrimination. **PREREQ:** Instructor's approval.

530 Economics and Public Policy (3) The principles and methods of economic analysis are ap-

plied to an evaluation of the American economic system. Inflation, recession, and economic growth; problems of public finance and taxation; public policy regarding the concentration of economic power.

531 Comparative Economic Systems (3) Essential economic features of economic systems, including capitalism, socialism, communism, and fascism.

532 History of Economic Thought (3) The growth and development of contemporary economic thought from Plato to the present, with emphasis on the mercantilist, classical, marginalist, and Keynesian schools.

English

Dr. Browne, *Chairperson*
Dr. Myrsiades, *Coordinator of Graduate Studies*

PROFESSORS

Michael W. Brooks, Ph.D., *University of Toronto*
Joseph Browne, Ph.D., *University of Pennsylvania*
Joseph Falgie, Jr., Ph.D., *University of Pennsylvania*
John L. Gaunt, Ph.D., *University of Maryland*
Paul D. Green, Ph.D., *Harvard University*
John P. Kent, Ph.D., *University of Illinois*
Alice B. Markow, Ph.D., *University of Pennsylvania*
Lynette F. McGrath, Ph.D., *University of Illinois*
David E. McKenty, Ph.D., *University of Pennsylvania*
Kostas Myrsiades, Ph.D., *Indiana University*
Bernard S. Oldsey, Ph.D., *Pennsylvania State University*
S. Keith Taylor, Ed.D., *Temple University*
Robert H. Weiss, Ph.D., *Temple University*
Theodora Lee West, Ph.D., *University of Pittsburgh*
Elsie B. Ziegler, Ed.D., *Temple University*

ASSOCIATE PROFESSORS

William D. Fordyce, Ph.D., *Harvard University*
Claude Hunsberger, Ph.D., *University of Wisconsin*
John T. Kelly, Ph.D., *University of Oklahoma*
Dwight L. McCawley, Ph.D., *University of Illinois*
John Ward, Ph.D., *University of Delaware*

ASSISTANT PROFESSOR

C. James Trotman, Ed.D., *Columbia University*

The Department of English offers two degree programs: the Masters of Arts in English and, in cooperation with the School of Education, the Master of Education in English. The Master of Arts permits the student to attain any of a number of goals. It may further scholarship in literature, language, and writing; prepare for study toward the Ph.D.; or provide a foundation for teaching in schools, community colleges, and junior colleges. The Master of Education is designed primarily to enhance the professional careers of English teachers. The Department of English also participates in an inter-disciplinary program leading to the Master of Arts in teaching English as a second language. (See Teaching English as a Second Language.)

In addition, the Department of English encourages students to take courses for professional growth and offers assistance and courses for students wishing to acquire certification in English.

ADMISSION TO DEGREE PROGRAMS

The applicant must (1) meet the general requirements for admission to degree study at West Chester University (See appropriate pages at the beginning of the Graduate Studies Catalog.), (2) submit results of the Aptitude Test (Morning Test) of the Graduate Record Examination, if deemed necessary, (3) satisfy departmental requirements for admission, and (4) take additional undergraduate and/or graduate courses as deemed necessary.

DEGREE REQUIREMENTS

MASTER OF ARTS IN ENGLISH

30 Semester Hours

REQUIRED COURSES

3 s.h.

ENG 500 (to be taken before the completion of 12 semester hours of graduate credit)

ELECTIVES

Selected under advisement from courses in English and approved related fields (e.g., history, linguistics). At least 21 semester hours must be in English courses.

MASTER OF EDUCATION IN ENGLISH

34 Semester Hours

REQUIRED COURSES

6 s.h.

ENG 500 (to be taken before the completion of 12 semester hours of graduate credit) and ENG 591

ELECTIVES

Selected under advisement from courses in English and approved related fields (e.g., linguistics, reading). At least 12 semester hours must be in English courses.

COURSES IN EDUCATION

At least 12 semester hours of course work must be taken in education. See pages 63-64.

For either degree, the student must pass a written comprehensive examination, offered on the second Wednesday of October, April, and July. Those who fail the examination twice must obtain the approval of the Department of English to take it a third and final time.

For more information concerning graduate work in English, see the **Handbook for Graduate English Students**, obtainable from the coordinator of graduate studies in English.

COURSE DESCRIPTIONS

ENGLISH

Symbol: ENG

GENERAL TOPICS (500-514)

500 Methods and Materials of Research (3) Basic techniques and procedures in research. The major types of research and the methods of locating, evaluating, and interpreting evidence. Includes the preparation of a research outline and paper.

501 Applied Literary Criticism (3) Study of various methods of literary analysis, with emphasis on the application of these methods in response to specific works of literature chosen from the principal genres of poetry, fiction, and drama.

502 History of Criticism (3) An historical study of literary criticism and aesthetic theory from Plato and Aristotle to the present.

507 Literature Seminar (3) Topics announced annually.

508 Writing Seminar (3) Discussion and development of major projects underway.

509 Writing Seminar in the Novel I (3) A course in the writing and preparing of book-length manuscripts (novel, novella, "non-fictional" novel) with the intention of submission for publication. Also includes coverage of fictional aspects and techniques used in writing memoirs, biography, current history.

510 Writing Seminar in the Novel II (3) A continuation of ENG 509.

ENGLISH LITERATURE (515-544)

517 Beowulf (3) An analysis of the entire poem in Old English. Emphasis on the artistic, linguistic, and historic values. **PREREQ:** ENG 584 or the equivalent.

518 Chaucer (3) A study of the *Canterbury Tales* and *Troilus and Criseyde*.

519 16th-Century Poetry and Prose (3) A survey of the major poetry and prose written in England during the Tudor period: Skelton to Shakespeare.

520 Spenser and Milton (3) The major works of Spenser and Milton studied in relation to the intellectual climate of the Renaissance. Emphasis on the *Faerie Queene* and *Paradise Lost*.

521 Major Renaissance Writers (3) A study in depth of major figures of the Renaissance. Intellectual background and literary influences. Donne, Milton, More, Spenser, Sidney.

522 English Drama to 1642 (3) A survey of English Drama (exclusive of Shakespeare) from its medieval beginnings to the closing of the theatres in 1642.

525 Shakespeare's Tragedies and Histories (3) Histories and tragedies read with analysis of dramatic and poetical effects.

526 Shakespeare's Comedies and Poems (3) The comedies analyzed. The poems read in relation to Shakespeare's developing, dramatic and poetic power.

527 17th-Century Poetry and Prose (3) A study in depth of the major 17th-century English poets and prose writers from Donne to Milton.

529 18th-Century Poetry and Prose (3) A study of the literature of the era, with emphasis on the cultural context, aesthetic theory, and the evolution of poetic techniques.

530 Restoration and 18th-Century Drama (3) Critical history of British drama from the reopening of the theaters to Sheridan. Major playwrights and study of theater history.

531 18th-Century British Novel (3) A study of the rise of the novel and its development in the 18th Century. Major novelists treated: Defoe, Richardson, Fielding, Smollett, Sterne.

533 Romantic Poetry and Prose (3) The poetry and prose of the early 19th century with emphasis upon the five major poets (Wordsworth, Coleridge, Byron, Shelley, Keats) and three major essayists (Lamb, Hazlitt, De Quincey).

534 Victorian Poetry and Prose (3) A study of Victorian poetry and prose to 1870; Tennyson, Browning, Ruskin, Arnold, Carlyle, Newman, Darwin, Swinburne.

535 Late Victorian and Edwardian Literature (3) A study of the poetry and prose of Hopkins, Pater, Morris, Wilde, Shaw, Hardy, and their contemporaries.

536 19th-Century British Novel (3) Develop-

ment of techniques in the British novel from Scott to Hardy.

537 Modern British Novel (3) A study of the British novel from 1914 to the present.

538 Modern British Poetry (3) A comprehensive study of the major British poets from 1890 to the present. Dowson, Housman, Hardy, Owen, Yeats, Eliot, Thomas, Lawrence, Auden.

539 Major 20th-Century Irish Writers (3) A comprehensive study of significant Irish writers of the 20th century: Yeats, Joyce, O'Casey, Synge, O'Connor, O'Faolain, Beckett, Shaw.

540 Joyce and Beckett (3) Detailed critical analysis of Joyce's *Dubliners*, *A Portrait of the Artist as a Young Man*, *Exiles*, and *Ulysses*; Beckett's drama and novels.

541 20th-Century Drama (3) Principal British and American playwrights from Shaw to Pinter and Albee.

544 Seminar in English Literature (3) Topic announced when offered.

AMERICAN LITERATURE (545-564)

547 American Literary Movements (3) Major movements in the development of American literature. Influence of leading writers on literary concepts, trends, and critical dicta: Topics to be announced.

548 Hawthorne and Melville (3) A study of their works and representative literary criticism.

549 Twain and James (3) A study of their works and representative literary criticism.

551 Hemingway and Faulkner (3) The works of Hemingway and Faulkner and the literary relationship of these works.

557 Major 20th-Century American Poets (3) A close study of several major modern American poets.

558 20th-Century American Writers (3) Major writers and literary movements from 1900 to the present: Topics to be announced.

562 Modern Afro-American Literature (3) An intensive study in themes and trends in modern Afro-American literature.

564 Seminar in American Literature (3) Topic announced when offered.

COMPARATIVE LITERATURE (565-574)

565 Comparative Literature (3) Studies in international literary and cultural relations; the characteristics and relations of universal literary types, themes, and genres: Topics to be announced.

566 Comparative Literature: The Greek Myths (3) The function and purpose of the Greek myths and their treatment in Western literature.

570 British and Continental Short Story (3) The short-story form; its origin and development. Current trends. Influences of German, French, and Russian writers upon the British form.

LANGUAGE (575-590)

575 Structure of Modern English (3) A detailed analysis of the modern descriptive approach to the study of English grammar and how it compares with the traditional approach.

576 English as a Second Language (3) Implications of the nature of language in teaching English to speakers of other languages. Methods and materials for teaching English as a second language. PREREQ: LIN 501 or permission of instructor.

577 History of the English Language (3) Review of the major influences on the development of the English language. PREREQ: LIN 501 or LIN 503.

578 Modern English (3) A study of the development of the English language from 1450 to the present (exclusive of American English).

579 Studies in American English (3) Historical processes in the development of American and British English. Regional and social dialects of American English. Usage and sociolinguistics.

580 English Language Workshop (1-4) Workshop to survey recent developments and newer concepts in English linguistics for teachers. Variable structure and credit, by arrangement with individual school districts.

584 Old English Language and Literature (3) An introductory study of the language through a reading of selected religious and secular poetry and prose.

585 Middle English Language and Literature (3) An introductory study of the language (1150-

1450) through a reading of selected texts (exclusive of Chaucer).

589 Language Seminar (3) Studies in English language and linguistics. Topics announced when offered. PREREQ: LIN 501 or the equivalent.

590 Independent Study (1-3) Research projects, reports, specialized readings. PREREQ: Approval of instructor and coordinator of graduate studies in English.

TEACHING SKILLS (591-599)

591 Modern Techniques for the Teaching of English (3) Techniques of teaching language arts, composition, and literature in the secondary school. Practice in planning and designing units and courses of study. Exploration into the latest research in teaching English.

592 Literature for the Elementary School (3) The content and approach of the literature program in the elementary school.

593 Literature for the Secondary School (3) An examination of the literary interests of the secondary school student. A discussion of the works of major writers who appeal to the teenage student.

595 Teaching Composition (3) A survey of developments and research in composition. Focus on the writing process; grading and evaluation; case approaches to writing assignments; writing across the curriculum; remedial/developmental writing.

596 Composition and Rhetoric (3) Study of rhetorical, grammatical, linguistic, logical, and psychological principles of written communication; the major modes of discourse; invention, arrangement, and style. Frequent practice in writing.

599 Workshop in English (1) Each workshop will focus on specific issues and problems in the teaching of English and will introduce appropriate instructional materials and techniques.

Ethnic Studies



Irene D. Shur, *Director*

COURSE DESCRIPTION

ETHNIC STUDIES

Symbol: SSC

580 Ethnic Cultures Workshop (3) This workshop considers the history, traditions, customs, and contributions to American life of many ethnic groups. The lectures and special programs are designed to increase the students' knowledge of

the multicultural nature of American society today. Projects, specifically tailored to the students' individual needs, are directed by a faculty member of the Ethnic Studies Institute of West Chester University.

(Workshop offerings, 1984: "Holocaust—Thirty-Five Years Later," "Black Americans Today.")

(Contact **Dr. Irene Shur**, Director of Ethnic Studies, Rooms 304 and 409, Main Hall, for information on the ethnic-oriented courses.)



Foreign Languages

Mr. Gougher, *Chairperson*
Dr. Patton, *Assistant Chairperson*
Dr. Lombardi, *Coordinator of Graduate Studies*

FRENCH

PROFESSORS

Madelyn Gutwirth, Ph.D., *Byrn Mawr College*
Alfred D. Roberts, Ph.D., *University of Pennsylvania*

ASSISTANT PROFESSOR

Robert Greene, M.A., *University of Pennsylvania*

GERMAN

ASSOCIATE PROFESSOR

Ronald L. Gougher, M.A., *Lehigh University*

ASSISTANT PROFESSORS

Ralph A. Eisenstadt, M.A., *University of Illinois*
Stephen G. Gilmour, Ph.D., *University of Minnesota*

LATIN

ASSISTANT PROFESSOR

Erminio Braidotti, Ph.D., *University of Pennsylvania*

SPECIAL INSTRUCTOR

John P. Rosso, M.A., *University of Pennsylvania*

SPANISH

PROFESSOR

Ronald P. Lombardi, Ph.D., *University of Pennsylvania*

ASSOCIATE PROFESSOR

Jorge Escorcia, M.A., *Boston University*

ASSISTANT PROFESSORS

Erminio Braidotti, Ph.D., *University of Pennsylvania*
Christopher Soufas, Ph.D., *Duke University*

LANGUAGE AND LINGUISTICS

PROFESSOR

Philip D. Smith, Jr., Ph.D., *Ohio State University*

The Department of Foreign Languages offers two degree programs, one leading to the Master of Education in French, Spanish, German, or Latin, and the other to the Master of Arts in French or Spanish.

The department also cooperates in the offering of an interdisciplinary program leading to the Master of Arts in Teaching English as a Second Language. (See Teaching English as a Second Language.)

MASTER OF EDUCATION IN FRENCH, SPANISH, GERMAN, OR LATIN

34 Semester Hours

The M.Ed. program requires Methods and Materials of Research in Second Language Education (LAN 500), Techniques of Second Language Teaching (LAN 503), and 18 semester hours in the area of concentration. The concentration may be designed to the student's particular interests and needs; but in French, Spanish, or German, it must include one course each from Groups A, B, C, and D. In Latin the 18-hour concentration is developed from Groups A and B under advisement. Majors in any of the languages may also elect from Courses Common to All Languages (See below) for the concentration.

The Department of Foreign Languages has approved the following undergraduate courses for graduate credit when scheduled with the approval of the student's advisor and/or department chairperson: FRE 401 to 411 inclusive; GER 401 to 412 inclusive; LAT 401-406 and 410-412 inclusive; RUS 401-403 and 410-412 inclusive; SPA 400-406 inclusive, 414, 456, 457, and 410.

At least 12 semester hours of course work in education are required. See pages 63-64.

COURSES COMMON TO ALL LANGUAGES

Introduction to Linguistics (LIN 501) and courses LAN 502 through LAN 600. (See course descriptions.)

FRENCH

- Group A
FRE 511-512-513-514-515-516
- Group B
FRE 520-521-522-523-524-525
- Group C
FRE 530-531-532-533-534
- Group D
FRE 540-541-542-543-544

LATIN

- Group A
LAT 503-511-512-514
- Group B
LAT 515, 521 through 531, and 535, 536

GERMAN

- Group A
GER 513-514-515
- Group B
GER 520-526
- Group C
GER 532-533-534-535
- Group D
GER 543-544-545

SPANISH

- Group A
SPA 510-511-512-513-514
- Group B
SPA 520-521-522-523-524-525
- Group C
SPA 530-532-533-534
- Group D
SPA 540-542-543-544-545-546

MASTER OF ARTS IN FRENCH OR SPANISH

30 Semester Hours

The M.A. programs in French or Spanish provide for either a thesis or non-thesis option. Both require 21 semester hours in the language as follows: FRE or SPA 511 and 6 hours from Groups B, C, and D above. The thesis program includes LAN 610 and an additional elective 3 hours in the concentration. The non-thesis option allows 9 semester hours of electives in the area of concentration.

The Department of Foreign Languages has approved the following undergraduate courses for graduate credit when scheduled with the approval of the student's advisor and/or department chairperson: FRE 401 to 411 inclusive; GER 401 to 412 inclusive; LAT 401-406 and 410-412 inclusive; RUS 401-403 and 410-412 inclusive; SPA 400-406 inclusive, 414, 456, 457, and 410.

Electives for both options may also be from Courses Common to All Languages. (See above.) For the M.A. program, LAN 550 is strongly recommended.

The candidate for the M.A. degree must pass a reading examination in a second foreign language or must have taken and passed at least one graduate-level course in a second foreign language.

COURSE DESCRIPTIONS

COURSES COMMON TO ALL LANGUAGES

Symbol: LAN

500 Methods and Materials of Research in Second Language Education (3) Techniques of research in foreign language education including sources, design, interpretation, evaluation, and reporting of data.

502 Second Languages in the Elementary School (3) Problems in teaching second languages in the elementary school. Curriculum design, bilingual education, classroom techniques, articulation, materials, testing. Preferably, LIN 501 or equivalent should precede LAN 502.

503 Techniques of Second Language Teaching (3) Advanced course in recent theoretical bases; methods for teaching beginning and advanced levels; curriculum design and evaluation. PRE-REQ: LIN 501 or equivalent.

504 Use of Media in Language Teaching (3) Role of media in language instruction including the tape recorder, language laboratory, television, and the computer.

505 Introduction to Bilingual/Bicultural Education (3) Introduction to history, philosophy, current status, and future directions of Bilingual/Bicultural Education. Survey of materials, tests, techniques, instructional processes and instructional patterns. Overview of testing, placement, and pupil evaluation.

511 Roman Civilization (3) Roman civilization and its influences on Europe.

550 Seminar in Methods and Materials of Research in Language and Literature (3) The principal tools of research in the field of foreign languages and literature. Methods of conducting and reporting research, emphasizing correctness of form and mechanics of scholarly writing.

560 Directed Studies (3) To provide an opportunity for students to pursue areas of study not regularly provided by the department. Focus of course to be announced when offered.

580 Seminar in Second Language Education (1-4) Specialized workshop seminar devoted to a particular area of foreign language education.

585 Institute in Second Language Education (4-8) In-depth study of a particular area of foreign language education.

590 Independent Study (1-3)

600 Research Report (1-2)

610 Thesis (6)

See also Linguistics (LIN)

FRENCH

Symbol: FRE

511 Romance Philology (French) (3) Historical development of French phonology and morphology from their beginnings to the present. Old French dialects.

512 Explication de Textes (3) This French technique of textual and stylistic analysis is studied and practiced.

513 Phonetics (3) Mastery of pronunciation and intonation of the French language through use of the phonetic alphabet. Laboratory drill with recordings of leading phoneticians.

514 Advanced Grammar and Stylistics (3) A conceptual approach to French grammar. Principles of French grammar and syntax; evaluation of recent changes in grammar and usage.

515 French Civilization (3) French civilization as reflected in its art, music, philosophy, and socio-political structure.

516 Exercices de Style (3) A study of French literary styles and the language of French literary criticism.

520 Rabelais (3) Rabelais: Critical studies of his life and works.

521 Moliere (3) The plays of Moliere; his life and times. History of comedy in France.

522 Voltaire (3) Major works of Voltaire. Analytical scrutiny of his philosophical views.

The impact of Voltaire on the character of Western civilization.

523 Rousseau (3) The works of Rousseau; their philosophical implications and stylistic character. Analysis of the important critical writings on Rousseau.

524 Balzac (3) The works of Balzac and a review of Balzacian criticism.

525 Proust (3) Reading and analysis of *A la recherche du temps perdu*. Survey of Proustian criticism; Proust the man. His place in the history of the novel.

530 French Classical Tragedy (3) The tragedies of Corneille and Racine; the history of tragedy in France.

531 The French Novel (Through the 19th Century) (3) History of the novel in France. The works of the major French novelists of the 19th century: Hugo, Stendhal, Balzac, Flaubert, Zola.

532 The 20th Century French Novel (3) The French novel in the 20th century and the philosophical, social, and aesthetic doctrines which helped to shape this literary form.

533 French Lyric Poetry (3) Evolution of French lyric poetry, with stress on the 19th century. Forms, techniques, rules of French versification.

534 The Contemporary French Theater (3) Principal dramatic works of the 20th century, analyzed against the history of the theater in France.

540 Medieval French Literature (3) Selected literary masterpieces, representing the various medieval genres: lyric poetry, epic, romance, allegory, fabliaux, prose chronicle, and drama.

541 French Literature of the Renaissance (3) Evolution of literary doctrine in the French Renaissance. Influence of various philosophical and aesthetic currents such as Platonism and Petrarchism.

542 Studies in the 17th Century (3) Selected writers and their works. Development of literary and aesthetic doctrines of the classical period.

543 Studies in the 18th Century (3) Selected masterpieces of the 18th century. Evolution of social and political ideas as reflected in the literary activity of the period.

544 Studies of the 19th Century (3) Selected writers of the 19th century of France. An examination of the literary doctrines which evolved through the century.

GERMAN

Symbol: GER

513 Phonetics (3) The sounds, forms, and

structure of modern standard German, using recorded materials and selected texts.

514 Advanced Grammar and Stylistics (3) Stylistic qualities of modern German, analyzed in selected texts. Oral and written drill.

515 German Civilization (3) Social structure of Germany; evolution of its institutions; German achievements in the arts.

520 Goethe (3) Goethe's works and his development toward classicism. Critical works dealing with his life and writings.

526 Kafka (3) The works of Kafka; criticism dealing with his life and writings.

532 The Novelle (3) The German short story from Goethe to the present, including the German Feuilleton and the post-World War II writers.

533 German Lyric Poetry (3) Major representative poets of the 19th and 20th century.

534 German Drama of the 19th Century (3) The works of the major German dramatists of the 19th century.

535 German Drama of the 20th Century (3) The works of the major dramatists of the 20th century with attention to expressionism and post-World War II dramatists.

543 The German Romantics (3) Selected writers of the German Romantic period.

544 19th Century German Realism (3) Major prose and poetry of German realists.

545 The German Expressionists (3) Major representative poets of the expressionistic movement.

LATIN

Symbol: LAT

503 Techniques of the Teaching of Latin (3) Survey and analysis of texts and other materials for teaching Latin. Recent methods for elementary and secondary levels. Curriculum for the secondary level.

511 Comparative Grammar and Syntax of Greek and Latin (3) The relation of Greek to Latin within the Indo-European family of languages. Survey of the external histories of Greek and Latin. Greek and Latin phonology and morphology with references to principles of syntax.

512 History of the Latin Language (3) Development of the Latin language from the earliest inscriptions to the 9th century A.D., with some consideration of the prehistoric language and people of Rome.

514 Advanced Latin Prose Composition and Translation (3) Intensive review of Latin syntax,

with translation of English passages into Latin and vice versa.

515 Seminar in Greek and Roman Civilization (3) A study of literary texts and archaeological documents illustrative of the Greek mind and/or Roman genius.

521 Cicero's Philosophical Essays (3) Studies in the *Somnium Scipionis*, *Tusculan Disputations*, *De Natura Deorum* and *De Officiis* with reference to Cicero's political theory and practice.

522 Virgil, Eclogues and Georgics (3) Studies in the themes and methods of Virgil's *Eclogues* and *Georgics*.

524 Comedies of Plautus (3) Origins of "comedy of manners," studies in Plautian comedy and in its influence upon later writers of comedy.

525 Latin Metre and Verse (3) The formal structure and development of Latin verse from its beginnings to the 20th century. Illustrative readings in early, classical, medieval, and modern Latin poetry.

526 Greek and Latin Epic (3) The Greek epic from Homer to Apollonius of Rhodes and the Latin epic from Naevius to Virgil. Readings from the classical epics.

527 Roman Historiography (3) Selections from Sallust, Caesar, Livy, Tacitus, and Suetonius. Origins, development, and influence of Roman historiography.

528 Roman Satire (3) History of Roman satire and the development of Lucilian Satire. A comparative study of the satires of Horace, Persius, and Juvenal.

529 The Latin Novel (3) Emergence and development of the Latin novel. Readings in Petronius' *Cena Trimalchionis*, Seneca's *Apocolocyntosis*, the Pompeian Inscriptions, and Apuleius' *Metamorphoses*.

530 Medieval Latin Literature (3) Latin poetry and prose from the 4th to the 17th centuries, with emphasis on the acquisition of good reading knowledge of medieval Latin in different periods and styles.

531 Latin Epigraphy (3) Latin inscriptions from the earliest period to the 8th century A.D. A study of the development of the Latin language.

535 Seminar in Interpretation of Latin Literature (3) Study of various modern approaches to Latin literature. Analysis of selected passages or themes from selected authors.

536 Literary Criticism in Antiquity (3) Study of selected authors or works with reference to both ancient and modern (e.g., Horace and Quintilian) criticism and interpretation.

SPANISH

Symbol: SPA

510 Advanced Spanish Phonetics (3) Theoretical and practical approach to phonology, phonetics, and phonetic transcriptions. Regional and dialectal variations.

511 Romance Philology (Spanish) (3) The development of Old Spanish from Vulgar Latin and Protoromance, with analysis of Spanish phonology, morphology, and syntax. Readings in Old Spanish.

512 Advanced Spanish Grammar and Stylistics (3) An informal rapid review of Spanish grammar, with emphasis on problems fundamental to the American classroom. Exercises include idiomatic expression, various levels of style, and translation.

513 Advanced Oral Spanish (3) An intensive course for teachers and professionals seeking improvement in oral Spanish. Emphasis on vocabulary and idiom acquisition via discussions, readings, and reports.

514 Spanish Civilization (3) Major philosophical and artistic contributions of the Hispanic world to Western civilization. Spain's social and economic institutions, and the character of her people as reflected in the arts.

520 Cervantes (3) Life and works of Miguel Cervantes Saavedra: *Novelas ejemplares*, *Ocho comedias y ocho entremeses*, *La Numancia*, *La Galatea*, all of which lead to the study of the meaning, philosophy, and influence of *Don Quixote*.

521 Juan Ruiz, Arcipreste de Hita (3) The *Libro de Buen Amor* as a major work in Spain's poetic development.

522 Lope de Vega (3) The Spanish *comedia* viewed as an expression of the Spanish people. The popular and national elements of this theater. Lope de Vega as the chief innovator and leading figure of the first half of the Golden Age.

523 Galdos (3) Benito Perez Galdos: his novels of social reform, enlightenment, and conversion.

524 Valera (3) Juan Valera's psychological novels, set in 19th century Andalusia.

525 Unamuno (3) The philosophical ideas of Unamuno studied in his critical essays, plays, and novels.

530 Spanish Comedia of the Golden Age (3) Survey of the *comedia* before Lope de Vega; the contributions of Lope de Vega; Tirso de Molina and Ruiz de Alarcon; the Baroque theater of Pedro Calderon de la Barca.

532 The Picaresque Novel (3) The picaresque novel as an indigenous creation of Spain; *Lazarillo de Tormes*, *Guzman de Alfarache*, *Vida del Buscon*; the picaresque novel as a tradition in Spain and an influence in other literatures.

533 The Generation of 1898 (3) The revitalizing forces which took hold in the late 19th century and a study of the works of Unamuno, Azorin, Menendez Pidal, Pio Baroja, Valle Inclan, Benavente, Martinez Sierra, and Ruben Dario.

534 Spanish Lyric Poetry (3) Spanish lyric poetry, with emphasis on early forms, the Renaissance Italianate forms, and the blossoming of lyric poetry in the 19th and 20th centuries.

540 Medieval Spanish Literature (3) The *mester de juglaria* and the *Poema del Cid*; early related epics and the *mester de clerecia*; Spain's early historical chronicles. Beginnings of the Spanish theater.

542 Spanish Romanticism (3) The Spanish Romantics and *costumbristas*: Duque de Rivas, Espronceda, Gomez de Avellaneda, Becquer, Larra, Mesonero Romanos. The dramatic novels of Pardo Bazan, Palacio Valdes, Clarin, and Galdos.

543 Contemporary Spanish Theater (3) The "Ibsenite" and social dramas of the late 19th century represented by the plays of Lopez de Ayala, Jose Echegaray, and Galdos. The transition period headed by Martinez Sierra and the brothers Quintero. Spain's modernistic drama exemplified by Federico Garcia Lorca and Alejandro Casona.

544 Masterpieces and Movements in Spanish Literature (3) A seminar on the development of Spanish thought and artistic expression through selected masterpieces of literature and art.

545 The Latin American Novel (3) The development of the novel in Latin America. The colonial period, the period of independence, the romantic period; realism, modernism, *criollismo*, and naturalism.

546 The Black in Spanish American Literature (3) The characterization of blacks in Spanish American literature and the political and social context of their portrayal.

556 Seminar I (3)

557 Seminar II (3)

ADDITIONAL LANGUAGE COURSES

LAN 580 Seminar in Puerto Rican Language and Culture (3) A study of the language and culture of Puerto Rico and the Puerto Ricans. Geography, history, immigration and emigration. Puerto Rican dialect and literature. Emphasis on the Mid-Atlantic Puerto Rican community. **PREREQ:** A reading knowledge of Spanish.

LAN 580 Seminar on the Teaching of Reading to Non-English Speakers (3) A study of language acquisition and the reading process in the person learning English as a second language. Selected techniques, placement, and materials.

Geography—See Government and Planning

Geology and Astronomy

Dr. Ehleiter, *Chairperson*

Dr. Greenberg, *Coordinator of Graduate Studies*

PROFESSORS

Seymour S. Greenberg, Ph.D., *Indiana University*

George F. Reed, Ed.D., *University of Pennsylvania*

Paul R. Widick, Ed.D., *Temple University*

ASSOCIATE PROFESSORS

Louis A. Casciato, M.S., *Villanova University*

John E. Ehleiter, Ed.D., *Pennsylvania State University*

Robert C. Hannum, M.S., *University of Pittsburgh*

Hubert E. Harber, M.A.T., *Brown University*

Allen H. Johnson, Ph.D., *Case Western Reserve University*

ASSISTANT PROFESSOR

Sandra F. Pritchard, Ph.D., *University of Oregon*

ADJUNCT PROFESSOR

Arthur R. Smith, Ed.D., *University of Pennsylvania*

The Department of Geology and Astronomy, in cooperation with the Departments of Chemistry and Physics, offers a program leading to the Master of Arts degree in physical science. See Physical Science Program.

COURSE DESCRIPTIONS

Geology and Astronomy

Symbol: ESS

501 Geomorphology (3) Lectures will present the constructional and degradational processes which have shaped present landforms and are constantly modifying those landforms. Laboratories will focus on the interpretation of topographic maps and the use of remote sensing materials. Field studies will be included.

502 Regional Geomorphology of North America (3) Lectures will direct the student through a systematic analysis of the surface configurations and landform regions of North America; the processes at work on these configurations in the past and at the present; and man's relationships to these features and processes. Laboratories will emphasize these features, processes, and relationships through the use of topographic maps and remote sensing materials. Field projects will be included. PREREQ: ESS 501.

503 Intermediate Mineralogy (3) How the petrographic microscope, x-ray diffraction, and the electron microscope are used to identify minerals.

505 Geology of the Solar System (3) The geology, origin, and properties of planets, comets,

asteroids, moons, and meteorites and planetary exploration. PREREQ: One introductory course in astronomy and one in geology.

508 Petroleum Geology (3) The characteristics of geologic origin and occurrence, migration, and accumulation of petroleum. Also includes a study of reservoir fluids, traps, and dynamics and investigation of exploration methods. PREREQ: ESS 510.

510 Principles of Physical Geology (3) Composition of the earth (minerals and rocks) and earth processes (weathering, erosion, metamorphism, volcanism, diastrophism).

511 Geophysics (3) Methods and techniques of physics applied to interpreting the internal structure and composition of the earth. PREREQ: ESS 510.

512 Historical Geology (3) Geologic history of the earth and the evidence for this history. Examination of fossils and geologic maps.

513 Principles of Geochemistry (3) Migration and distribution of the chemical elements within the earth; chemistry of the lithosphere, hydrosphere, and biosphere, and biosphere; chemical changes throughout earth history; the geochemical cycle.

514 Mineralogy (3) Properties, identification, occurrence, and crystallography of the more important minerals. Fundamentals of mineral composition and structure.

515 Petrology (3) Origin, classification, and identification of rocks. Field and hand specimen examination.

516 Structural Geology (3) Sequential development of the structural features of the earth; the forces involved. PREREQ: ESS 510, 512.

517 Sedimentation and Stratigraphy (4) Development of the relative geologic time and methods and techniques for the description and evaluation of the physical, chemical, and biologic environment existing at the time of formation of stratified rock. PREREQ: ESS 510, 512.

519 Field Geology (1-3) Practical experience in techniques and tools of the field geologist. PREREQ: An introductory geology course.

520 Geology of the Northwest National Parks (4) This course includes a field trip to the national parks in the states of South Dakota, Wyoming, Montana, Idaho, northern Utah and Colorado. The purpose of the course is to look at the geologic features of the National Parks in these states, and to develop an appreciation of the geology and geologic history of the region. PREREQ: ESS 510 or 512.

521 Geology of the Southwest National Parks (4) The course includes a field trip to the National Parks in the states of New Mexico, Arizona, southern Utah and Colorado. The purpose of the course is to look at the geologic features of the National Parks in these states, and to develop an appreciation of the geology and geologic history of the region: PREREQ: ESS 510 or 512.

522 Economic Geology (3) The geologic origin, accumulation, and distribution of metalliferous economic mineral deposits. Also investigates exploration methods. PREREQ: ESS 510.

523 General Geologic Field Studies of Southeastern Pennsylvania (3) Occurrence, relationships, and geologic history of the rocks, minerals, and soils of this area, studied at representative locations.

524 History of Geology (1) Outstanding individuals and their contributions to geology.

527 Electron Microscopy I (3) A one-semester lecture/laboratory course in theory operation and applications of electron beam technology in scientific research. Course scheduled on student-demand basis (CHE 527).

528 Engineering Geology (3) The application of geological factors into the planning and design of engineered construction. PREREQ: ESS 510.

529 Electron Microscopy II (3) A one-semester lecture/laboratory course in advanced theories operation and applications of electron microscopy in scientific research. Emphasis on individual projects. PREREQ: CHE/ESS 527. Course scheduled on student-demand basis.

530 Principles of Oceanography (3) Geology of the ocean floor, water movements, chemical characteristics of sea water, vertical and horizontal distribution of plants and animals. Brief history of oceanography.

533 Introduction to Fossils (3) Identification and study of common fossils in order to understand their life processes and geologic significance.

536 Environmental Geology (3) The application of geological information to human problems encountered in the physical environment such as flooding, earthquakes, volcanic activity, hydrology, and land use. PREREQ: ESS 510.

537 Groundwater Geology (3) The study of subsurface water, its total volume, and availability, and the relationship between surface and subsurface waters.

540 Introduction to Meteorology (3) Composition and properties of the atmosphere and principles that influence weather conditions.

550 General Astronomy (3) Motions of bodies in the solar system; astronomical coordinates; measurement of time; use of telescopes.

551 Stellar Astronomy (3) Properties of stars; unusual stars, interstellar matter, and stellar evolution; distribution and motions of the home and other galaxies. PREREQ: Any general descriptive astronomy course.

553 Nautical Astronomy (Celestial Navigation) (3) A study of the technical skills of celestial navigation covering such topics as celestial coordinates, principles of time, and the navigational triangle, lines of position and star identification. PREREQ: Any algebra and trigonometry course.

554 Archeoastronomy (3) A study of the ancient astronomical skills of the world including those of the Babylonians, Egyptians, Greeks, Chinese, Maya, Incas, Aztecs and the North American Indians. PREREQ: Any descriptive astronomy course.

555 Intermediate Astronomy (3) An analytical and qualitative analysis of selected astronomical phenomena. Such topics as: telescope optics (including photographic and photoelectric attachments), lunar and planetary orbits, stellar motions and magnitudes, galactic classifications and distances. Two hours of lecture. Two hours of laboratory.

562 History of Astronomy (3) The development of astronomical theories from Greek times until the 20th century. PREREQ: ESS 111.

576 Introduction to the Planetarium (3) Principles and use of the planetarium in teaching. Specific projects are assigned. PREREQ: ESS 550.

580 Astronomy in England (3) The development of astronomical theories and equipment in England from prehistoric times until 20th century. PREREQ: An introductory course in astronomy and permission of instructor. Offered only in summer.

581 Geology in England (3) The major rocks, minerals and fossils of England and how they are

used in the development of geologic principles. PREREQ: An introductory course in geology and permission of instructor. Offered only in summer.

590 Fundamentals of Soil (3) The properties of soils, edaphology, pedology: chemical, physical and biological factors. Soil genesis and classification.

591 Independent Study (1-3) An investigation by a student. PREREQ: Permission of department.

SCI 522 Philosophy of Science (See PHI 522.)

Any of the following dual-level courses (but not more than 6 semester hours of credit) may be taken for graduate credit toward the degree:

ESS 555 Intermediate Astronomy

ESS 576 Introduction to the Planetarium

ESS 590 Fundamentals of Soils

(All are 3-credit courses.)

See also Science Education.

Science Education

COURSE DESCRIPTIONS

SCIENCE EDUCATION

Symbol: SCE

500 Modern Trends in Science Education (3) Introduction to current research in science education; a critical review of the literature. Required for M.A. in physical science.

502 Modern Trends in Teaching Earth and Space Science (3) Recent materials and techniques in secondary school earth and space science.

510 Workshop in Secondary School Curricula (3) Study of one of the commonly used science programs for secondary schools. The selected program is announced in advance.

595 Elementary School Science Instruction (3) A course to improve the science content backgrounds of elementary-school teachers and administrators.

PHS 502 Modern Trends in Teaching Physical Science (2) Materials and techniques in secondary school physical science. Required for M.A. in physical science.

SCIENCE OFFERINGS DESIGNED FOR ELEMENTARY SCHOOL TEACHERS

PHS 571 Physics for the Elementary Teacher

SCE 595 Elementary School Science Instruction

Government and Planning

Mr. Bielski, *Chairperson*

Mr. Burns, *Assistant Chairperson*

Mr. Bielski, *Coordinator of Graduate Studies: Geography and Planning*

Mr. Burton, *Coordinator of Graduate Studies: Public Administration*

Dr. Milne, *Director, M.S. in Administration*

GEOGRAPHERS

ASSOCIATE PROFESSORS

F. Robert Bielski, M.A., *University of Illinois; A.I.C.P., American Planning Association*

Charles W. Grassel, M.S., *University of Pennsylvania*

William J. Rampon, M.A., *University of Oklahoma*

Arlene C. Rengert, Ph.D., *University of Pennsylvania*

John C. Tachovsky, Ph.D., *University of Cincinnati*

ASSISTANT PROFESSOR

Wesley W. Thomas, Ph.D., *University of Cincinnati*

POLITICAL SCIENTISTS

PROFESSORS

Thomas J. Brady, J.D., *Temple University*

James S. Milne, Ph.D., *Temple University*

John C. Shea, Ph.D., *University of Pittsburgh*

ASSOCIATE PROFESSORS

William F. Burns, M.A., *Case Western Reserve University*

A. Wayne Burton, M.A., *University of Pennsylvania*

David S. Eldredge, A.M.T., *Harvard University*

Lawrence V. Iacono, M.Ed., *West Chester State College*

Robert J. Marbach, Ph.D., *Temple University*

ASSISTANT PROFESSORS

Bhim Sandhu, Ph.D., *University of Missouri*

James G. Smith, Ph.D., *Indiana University*

MASTER OF ARTS IN SOCIAL SCIENCE: Concentrations in Political Science

The Department of Government and Planning offers a Master of Arts in social sciences with a concentration in political science. This concentration is highly appropriate for persons active in teaching, government, politics, commerce, or industry, as well as for those who wish to enrich their cultural background.

MASTER OF SCIENCE IN ADMINISTRATION: Concentrations in Public Administration and Urban and Regional Planning

The Department of Government and Planning participates in an interdisciplinary degree program leading to a Master of Science in administration with concentrations in public administration and urban and regional planning. See Administration, pages 37-38.

The Department also offers a Master of Arts in geography. This program is designed to develop skills and expertise useful in solving society's problems in such areas as land planning and management, conservation of resources, and location of commerce and industry.

MASTER OF ARTS IN GEOGRAPHY

33 Semester Hours

1. Required Courses 15 s.h.
GEO 505, 506, 508, 581 and 585
2. Thesis 6 s.h.
GEO 610
3. Elective Courses 12 s.h.
Selected under advisement from Geography, Geology, Mathematics, Statistics, or Computer Science.

MASTER OF ARTS IN SOCIAL SCIENCE

Concentration: Political Science

30 Semester Hours

1. Research Area 6 s.h.
PSC 500—Methods and Materials of Research in Political Science and
PSC 600—Research Report required
2. Political science/public administration electives 9-12 s.h.
selected under advisement
3. Electives from offerings of two of the following programs: 12 s.h.
Anthropology, Criminal Justice, Geography, History, Planning, Psy-
chology, Social Work, Sociology.
4. Cognate area 0-3 s.h.
Elected from any program in the university

COURSE DESCRIPTIONS

GEOGRAPHY

Symbol: GEO

505 Map Design (3) Map design methods and techniques. Presentation of statistical data in map form. PREREQ: Introductory cartography or consent of instructor.

506 Environmental Hazards and Site Planning (3) This course will be concerned with aspects of the physical environment that must be considered in the planning for any site for urban, industrial, or suburban activity. The main thrust will be hazard-zone planning; either the avoidance of risks or minimization of risks from natural hazards or man-made hazards in planning such activities.

507 Maps and Aerial Photographs in the Planning Process (3) Designed to improve map and photo interpretation skills. Emphasis on increased understanding of U.S.G.S. quadrangles, and special-purpose statistical maps.

508 Research Design and Analysis (also CRJ 508) (3) Emphasis upon social-research processes: problem identification; data collection and use; application of statistical procedures; and computer techniques; hypothesis testing and problem resolution in social planning and decision-making.

509 Quantitative Methods in Planning (3) Fundamental statistics, methods, and techniques applied to urban and regional planning research and decision-making.

521 Suburbanization and Land Development (3) Component systems and functional operations of urban/suburban communities, including ecological and demographic aspects. Emphasis upon organization, development, change, and problems of communities.

524 Population Processes (3) Characteristics and distribution of world populations are studied. The dynamic processes of population change (mortality, fertility, and migration) are examined.

525 Urban and Regional Planning (3) Application of community-planning theories and methods to designated urban and regional systems.

526 Metropolitan Systems and Problems (3) Urbanization processes and problems; urban systems in the expanding metropolitan and regional setting; present and proposed efforts to solve urban problems.

527 Planning Law and Organization (3) An insight into the role of federal, state, and local governments in instituting, executing, and judicially-reviewing laws and regulations pertaining to land uses. Special emphasis is given to legal

organization of the planning process particularly at the local level. Major land-use court cases are presented and reviewed.

529 Geographic Influences in World History (3) Effect of geographic factors upon selected movements, occurrences, eras, and cultural groups in modern world history.

530 Demographic Analysis (3) A course to develop skills in basic demographic research, emphasizing the uses and limitations of data sources, and the understanding and interpretation of specific analytic methods for population analysis.

540 Geography of the United States (3) A regional study of the United States, emphasizing relationships between physical geography and man's economic and political responses to environmental circumstances.

544 Geography of Latin America (3) Regional geography of Latin America: its physical base, settlement, agriculture, mining, and manufacturing. Inter-American relations are considered.

545 Geography of Europe (excluding the U.S.S.R.) (3) Regional study of Europe. Influences of environmental factors, such as climate, landforms, and soils on the economic, social, and political condition of European nations.

546 Geography of Soviet Union (3) European and Asiatic U.S.S.R. and its satellite nations. Elements of the environment and regional divisions in relation to resource base and economic/political objectives.

571 Conservation Workshop (3) An appraisal of resource conservation and resource management practices in the context of regional planning.

572 Seminar in Resource Management (3) Research problems in resource management, done on an individual-student, or team-study basis.

581 Seminar in Modern Philosophy of Geography (3) Modern geographic thought with emphasis on contributions of American geographers and their most recent views.

585 Geography Field Methods (3) An advanced field course which includes urban and land-use studies. Utilization of field methods, mapping, and data collection for geographical reports.

590 Independent Studies in Geography (3) Research projects, reports, readings in geography. PREREQ: Approval of discipline graduate coordinator.

610 Thesis (3 or 6) A thesis is developed on a research problem for which the student develops a theory, proposition or hypothesis, and investigates available information on the subject.

POLITICAL SCIENCE

Symbol: PSC

500 Methods and Materials of Research in Political Science (3) Logic of scientific methodology, research design construction. Stress on hypothesis development and testing, data collection, measurement problems, theory application.

515 Women in Politics (3) The role of women in politics is surveyed. Considerations include the relationship between the sexes as it has an impact on politics.

525 The American Presidency (3) Analysis of the presidency, stressing its evolution into a modern institution and the contemporary behavioral aspects of the office. Personality, power, and campaign strategy in conjunction with presidential relations with the executive branch, Congress, courts, and the media.

531 Modern Political Theory (3) Critical analysis of enduring political problems as seen primarily in the writings of theorists from Machiavelli to the present; basic concepts of political science; theories concerning the proper role of the state in society.

532 International Relations (3) Factors which motivate the actions of nations; machinery which members of the nation-state system have evolved for effecting their various policies. Methods of diplomacy, international law, international organization.

533 Congressional Politics (3) The politics of and the legislative process in Congress. Internal influences on the Congressional performance such as rules, norms, and behavior and external influences including the executive and interest groups.

534 American Political Parties (3) Patterns, functions and history of the American political party system at national, state, and local levels. Theoretical and empirical studies of political interest groups, public opinion, voting behavior.

540 American Constitutional Law (3) Evolution of constitutional law through study of the leading decisions of the Supreme Court and their significance for the American governmental system.

541 Latin-American Culture and Politics (3) Comparative analysis of contemporary Latin-American systems. Stress of political culture, decision making, ideologies and political processes.

542 Dynamics of Public Opinion and Political Behavior (3) The political role and style of masses and elites; uses and abuses of polls, political socialization, voting behavior, campaigning and media. Understanding individual opinion formation (micro) and mass publics (macro).

544 American Public Policy (3) Survey of literature; examination of approaches; discussion of concepts and issues in the field of American politics and policy processes.

548 The Communist Powers (3) Comparative study of various Communist systems, particularly the U.S.S.R. and China. Elite-mass relationships; role of Marxism-Leninism; party, economic, and political structures. Secondary attention to Eastern Europe, Cuba and non-ruling parties.

549 Politics of Bureaucracy and Administrative Behavior (3) In-depth examination of the fourth branch of government. Impact of administrative apparatus (bureaucracy) on public policy formulation and implementation in the United States.

551 The Politics of Non-Western Areas (3) Problems of nation-building, political participation, and elite-mass relationships in the less de-

veloped nations. Latin American, Asian, or African nations may be stressed as a case study.

552 Civil Liberties and Civil Rights (3) Analysis of constitutional rights and governmental attitudes with respect to civil liberties. Emphasis on case-study method and role-playing.

560 The Politics of Revolution (3) Synthesis of research, concepts, and theories of revolution. Stress on the meaning, causes, phases, and ideologies of revolution. Contemporary movements emphasized.

590 Independent Studies in Political Science (1-3) Research projects, reports, and readings in political science. PREREQ: Approval of department chairperson.

600 Research Report (3)

610 Thesis (3)



Health

Dr. Mustalish, *Chairperson*

PROFESSORS

John D. Lemcke, Ed.D., *Temple University*

Dorothy R. Nowack, Ph.D., *University of Maryland*

ASSOCIATE PROFESSORS

John L. DeMillion, M.Ed., *University of Pittsburgh*

J. Thomas Fisher, M.S., *University of Illinois*

Phyllis A. Goetz, Ph.D., *University of Maryland*

Roger W. Mustalish, Ph.D., *University of Minnesota*

John R. Steinmetz, Ed.D., *Temple University*

Carol R. Weber, Ph.D., *University of Maryland*

ASSISTANT PROFESSOR

Maura J. Sheehan, Sc.D., *University of Pittsburgh*

ADJUNCT INSTRUCTOR

John P. Maher, M.D., *S.U.N.Y.*

The Department of Health offers degree programs leading to the Master of Education in Health, Master of Science in Health and a concentration in Health Services Administration within the Master of Science in administration.

The Master of Education enriches academic preparation for teaching in elementary and secondary schools and/or first-level employment in the various professions related to health.

The Master of Science is designed primarily to meet individual needs of the graduate student who wishes to pursue graduate work as an aid to upgrading careers in government, industry,

research, and related health professions. The M.S. is recommended for persons planning for doctoral study.

The Health Services Administration concentration in the Master of Science in administration program meets the needs of those persons interested in entering the field of health administration and of those persons presently in health administration interested in upgrading their careers.

Communication with the Department

All inquiries and other communications regarding the graduate program in health should be addressed to Dr. Roger Mustalish, Chairperson, Department of Health, School of Health Sciences, West Chester University, West Chester, Pa. 19383. Telephone: 215-436-2931.

MASTER OF SCIENCE PROGRAM

Admission to the M.S. Program

Applicants must meet the basic requirements of the university, given under Admissions and must present a baccalaureate degree attained in their anticipated major area of health or equivalent preparation in a related field. They must also present the results of the aptitude section of the Graduate Record Examination or the Miller Analogies Test. Normally, minimum test scores for full matriculation will be 450 Math/450 Verbal for the GRE, or 40 for the MAT.

Admission to the M.S. Degree Candidacy

Within the 15 semester hours of pre-candidacy, majors in health must complete departmental and concentration core courses with a minimum quality point average for these and all other courses during pre-candidacy of 3.00.

Requirements for the M.S. Degree

1. Satisfactory completion of the M.S. curriculum shown below with an overall average of 3.00.
2. Satisfactory performance on the written and/or oral comprehensive examinations.
3. Oral defense of the thesis.

Registration Policy for Research Credits

Research credits for the M.S. degree are earned in HEA 608 and HEA 610. The thesis proposal (HEA 608) must be formally accepted before the student may register for thesis credits (HEA 610). *Important:* To remain an active degree candidate, the student must continue to register for graduate research credits for at least two of the three sessions that constitute an academic year (Fall Semester, Spring Semester, Regular Summer Session). Students failing to continue to register for two of the three sessions per academic year will be dropped from active degree status, and all grades already earned for research credits will revert to "AU" (audit). If the student later wishes to regain active status, he/she will have to begin the process over again with HEA 608.

CURRICULUM

1. Degree Core 6 s.h.
 - HEA 520 Scientific Bases for Health (3)
 - HEA 531 The Community as a Basis for Health (3)
2. Concentration Core 6 s.h.
 - Students must select one of the concentrations below:
 - A. SCHOOL HEALTH
 - HEA 620 School Health Programs (3)

HEA 622 Curriculum and Instruction in Health Education (3)

B. PUBLIC HEALTH

HEA 530 General Environmental Health (3)

HEA 632 Advanced Theory and Application of Health Behavior (3)

C. ENVIRONMENTAL HEALTH

HEA 455 Environmental Health Seminar (3)

HEA 530 General Environmental Health (3)

D. GERONTOLOGY

HEA 522 Introduction to Gerontology (3)

HEA 519 Geriatrics (3)

3. Concentration Electives 9 s.h.

Selected under advisement

4. Additional Degree Requirements 9 s.h.

PSY 501 Introductory Statistics for Behavioral Sciences (3) or

STA 521 Statistics (3) *and*

HEA 608 Thesis (3) — proposal

HEA 610 Thesis (3) — seminar

Students with inadequate preparation in research methodologies must enroll in HPE 600 as part of their concentration electives.

MASTER OF EDUCATION IN HEALTH

Admission to the M.Ed. Program

In addition to meeting the basic requirements of the university, given under Admission, applicants must present a baccalaureate degree attained in the field of health, or equivalent preparation in a related field.

Admission to M.Ed. Degree Candidacy

Within the 15 semester hours of pre-candidacy, the student must complete departmental and concentration core courses with an average of 3.0.

Requirements for the M.Ed. Degree

1. Satisfactory completion of the M.Ed. curriculum shown below, with an overall grade point average of 2.75; 3.0 in the concentration.
2. Satisfactory performance on the written and/or oral comprehensive examination.
3. Successful completion of the research project.

Registration Policy for Research Credits

Research credits for the M.Ed. degree are earned in HEA 606 and HEA 607. These credits must be preceded by successful completion of HPE 600 or EDF 500. The research project proposal (HEA 606) must be formally accepted before the student may register for HEA 607. *Important:* To remain an active degree candidate, the student must continue to register for graduate research credits for at least two of the three sessions that constitute an academic year (Fall Semester, Spring Semester, Regular Summer Session). Students failing to continue to register for two of the three sessions per academic year will be dropped from active degree status, and all grades already earned for research credits will revert to "AU" (audit). If the student later wishes to regain active status, he/she will have to begin the process over again with HEA 606.

CURRICULUM

1. Degree Core 6 s.h.
 HEA 520 Scientific Bases for Health (3)
 HEA 531 The Community as a Basis for Health (3)
2. Concentration Core 6 s.h.
 Students must select one of the concentrations below:
 - A. SCHOOL HEALTH
 HEA 620 School Health Programs (3)
 HEA 622 Curriculum and Instruction in Health Education
 - B. PUBLIC HEALTH
 HEA 530 General Environmental Health (3)
 HEA 632 Advanced Theory and Application of Health Behavior (3)
 - C. GERONTOLOGY
 HEA 522 Gerontology (3)
 HEA 519 Geriatrics (3)
3. Concentration Electives 9 s.h.
 Selected under advisement
4. Additional Degree Requirements 13 s.h.
 EDF 510 Educational Foundations (3)
 HPE 600 Methods/Materials of Research (3) OR
 EDF 500 Methods/Materials of Research in Education (3)
 PSY 501 Introductory Statistics for Behavioral Sciences (3)
 HEA 606 Research Report I (2)
 HEA 607 Research Report II (2)

CONCENTRATION IN HEALTH SERVICES ADMINISTRATION—MASTER OF ADMINISTRATION

Admission to the M.S. Program

Applicants must meet the basic requirements of the university, given under Admission, and must present a baccalaureate degree attained in their anticipated major area of health or equivalent preparation in a related field. They must also present the results of the aptitude section of the Graduate Record Examination or the Miller Analogies Test.

Admission to the M.S. Degree Candidacy

Within the 15 semester hours of pre-candidacy, majors in the health administration concentration must complete 3 of the administration core courses and 2 of the health administration core with a minimum quality point average for these courses during pre-candidacy of 2.75.

Requirements for the M.S. Degree

1. Satisfactory completion of the M.S. in administration curricula shown below with an overall average of 2.75.
2. Satisfactory performance on the written/or oral comprehensive examinations.
3. Successful completion of field research.

Registration Policy for Research Credits

Research credits for the health services concentration are earned in HEA 611. *Important:* Until this field research project is formally completed and accepted, the student, to remain an active degree candidate, must continue to register for HEA 611 for at least two of the three sessions that constitute an academic year (Fall Semester, Spring Semester, Regular Summer Session). Students failing to continue to register for two of the three sessions per academic year will be dropped from active degree status.

CURRICULUM

1. Administration Core 18 s.h.
 - ADM 501 Administrative Theory and Environment (3)
 - ADM 502 Computers for Managers (3)
 - ADM 503 Accounting for Administration (3)
 - ADM 504 Communication for Administrators (3)
 - ADM 505 Organizing Human Resources (3)
 - ADM 506 Budgeting and Fiscal Management (3)
2. Health Administration Core 9 s.h.
 - HEA 630 Application of Administration/Management to Health Services (3)
 - HEA 631 Health Services and the Law (3)
 - HEA 632 Advanced Theories and Application of Health Behavior (3)
3. Health Electives 6 s.h.

Select any two from the following:

 - HEA 520 Scientific Bases for Health (3)
 - HEA 521 Sociological Bases for Health (3)
 - HEA 522 Gerontology (3)
 - HEA 523 Consumer Education (3)
 - HEA 524 Problems in Industrial Health (3)
 - HEA 530 General Environmental Health (3)
 - HEA 531 The Community as a Basis for Health (3)
 - HEA 532 Institutional Environmental Health (3)
 - HEA 621 Human Sexuality in a Changing Society (3)
 - HEA 623 Addictive Diseases (3)
4. Additional Degree Requirement 3 s.h.
 - HEA 611 Field Research (3)

COURSE DESCRIPTIONS

HEALTH

Symbol: HEA

517 The Aging Consumer (3) An analysis and discussion of the unique consumer needs of the elderly, particularly as they relate to personal health. Topics will include health insurance, costs of health care and delivery, and maintenance of healthful day-to-day living, among others. Strategies for solving these consumer health problems will be presented.

518 Applied Gerontology (3) Design and development of health programs to provide services for the aging population in order to assist them to live as independent members of their community. PREREQ: HEA 517, 519, 522, or permission of instructor.

519 Geriatrics (3) A detailed discussion of physical and mental disabilities and diseases which often accompany the aging process. Methods of treatment for these disorders will also be presented.

520 Scientific Bases for Health (3) The scientific method as it applies to health. An overview of principles of disease causation with an emphasis on health program evaluation.

521 Sociological Bases for Health (3) Past and recent scientific developments in selected socio-

logical health problems. Analysis of research findings in the areas of social and mental health; the place of these findings in the basic content in health education and their practical application through group behavior.

522 Gerontology (3) Information on past and present trends concerning services to the elderly. Discussions on contemporary gerontological problems and factors affecting the treatment of the elderly. This broad based, introductory course is for those interested in the aging population.

523 Consumer Education (3) Consumer-related problems of the individual and society. Consumerism, cost and delivery of health services and the effect on individual and societal health. Consumerism and the law.

524 Problems in Industrial Health (3) An in-depth consideration of the health aspects of work places. Theoretical as well as applied practices will be presented; field trips and a laboratory will be associated with this course.

525 Elementary School Health Education (3) Trends in elementary school health: curricular approaches and emphasis, teaching strategies, motivational techniques, resources, materials, issues, problems and evaluations. PREREQ: Background in elementary education.

526 Life Support Techniques (3) Advanced methods in cardiopulmonary resuscitation and advances in first aid techniques leading to American Heart Association certificate of "Basic Life Support-CPR." Current methods of personal and group injury management.

530 General Environmental Health (3) Methods of promoting health by controlling environmental factors relating to air, water, wastes, housing, radiation, and industrial hygiene.

531 The Community as a Basis for Health (3) An analysis of the community with its diverse population, and its response to critical and current health problems. Emphasis will be placed on the need for balance between individual and community needs, rights, and responsibilities.

532 Institutional Environmental Health (3) A comprehensive assessment of the environmental health aspects of institutions, including microbiologic considerations, environmental hygiene, safety, general sanitation, and administration. Health care facilities as well as correctional institutions and schools will be discussed.

533 Water Quality and Health (3) An examination of the physical, chemical, and biological characteristics of natural waters and their significance for human health; methods of water treatment and distribution will also be considered.

535 Health Workshops (1-3) Selected topics current to the interests and needs of professionals serving in the various health and health-related areas will be studied intensely. Topics for each workshop will be announced prior to the first day of each college session.

606 Research Project Seminar I (2) The M.Ed. candidate selects a problem for a research report, reviews the literature, develops procedures, and collects appropriate data. Students are expected to complete the first three chapters of the research report during Seminar I. PREREQ: HPE 600 or EDF 500.

607 Research Project Seminar II (2) M.Ed. candidates are expected to complete their research reports in this seminar (see HEA 606). PREREQ: HEA 606.

608 Thesis Seminar (3) A course for the M.S. candidate, who selects a topic, reviews the literature, develops procedures, and prepares a proposal acceptable to the thesis committee.

609 Independent Study and Special Projects. (1-3) Research projects, seminar papers, reports of special conferences, and reading in health. PREREQ: administrative approval.

610 Thesis (3) Undertaken upon completion of HEA 608.

611 Field Research (3) A research project for

students in the Health Services Administration concentration. All core coursework should be completed before beginning the research project.

620 School Health Problems (3) In-service training in school health problems, using a variety of materials, methods, and resources.

621 Human Sexuality in a Changing Society (3) Problems of sexual organs such as dysfunction. Changing sexual attitudes and behavior of individuals, families, and society. Commercial sex, misinformation, sex and the law, population control. Sex education for home and school.

622 Principles of Curriculum and Instruction for Health Education (3) Alternatives for viewing and reviewing instructional programs. Existing rationales. Conception of curricula. Developing effective curriculum.

623 Addictive Diseases (3) Designed to assist the student and in-service teacher in developing knowledge and insight into the addictive diseases (alcohol, drugs, tobacco). Utilization of resource personnel.

630 Application of Administration/Management to Health Services (3) Application of the administration and management techniques acquired in the administrative core to the problems involved in health administration/management. Topics will include federal, state, and local health agencies, health care centers, organization principles, personnel factors, public relations and fiscal management. PRE: ADM 502, 503, 506.

631 Health Services and the Law (3) An analysis of the basic legal concepts and major legal issues of importance to and directly affecting the health services administrator; topics include legal frameworks of health organizations and health practitioners; administrative policy, contracts, consent, patient's rights, legal death, insurance, liability and research.

632 Advanced Theories and Application of Health Behavior (3) An advanced course on current theories in health behavior and the application of these theories to management methods in the health care field. Topics include trends in health behavior, health concerns, analysis of the decision-making process and factors affecting health behavior.

UNDERGRADUATE COURSES FOR GRADUATE CREDIT

The Health Department has approved the following undergraduate courses for graduate credit when scheduled with the approval of the student's advisor and department chairperson:

410 Mental Health (3) Designed to aid persons in improving their understanding of themselves

and others. Emphasis on ways to recognize mental health problems.

435 Health Workshop (1-6) Special workshops on contemporary health problems and issues. Topics announced at time of offering.

451 Toxic Substances (3) An investigation of the health problems caused by toxic substances primarily in the workplace and also in the general environment. Industrial hygiene methods of using technology to evaluate and control toxic substances will be discussed and demonstrated.

452 Industrial Hygiene (3) A study of the anticipation, recognition, evaluation, and control of health hazards in the work environment.

455 Environmental Health Seminar (3) In-depth investigations and discussions of topics of particular concern or significance to the environmental health field. Topics will be varied from year to year.



History

Dr. Stuart, *Chairperson*

Dr. Burgwyn, *Coordinator of Graduate Studies*

PROFESSORS

H. James Burgwyn, Ph.D., *University of Pittsburgh*
 Florence Joseph Crowley, Ph.D., *University of Florida*
 Claude R. Foster, Ph.D., *University of Pennsylvania*
 Frank Fox, Ph.D., *University of Delaware*
 Clifford H. Harding, Ph.D., *New York University*
 Patricia C. Johnson, Ph.D., *University of Rochester*
 Donn C. Riley, Ph.D., *St. Louis University*
 Harry G. Schalck, Ph.D., *Clark University*
 Anne Sessa, Ph.D., *University of Delaware*
 Irene G. Shur, Ed.D., *University of Pennsylvania*
 Norbert C. Soldon, Ph.D., *University of Delaware*
 Charles H. Stuart, Ph.D., *Boston University*
 Jane B. Swan, Ph.D., *University of Pennsylvania*
 John J. Turner, Jr., Ph.D., *Columbia University*
 Richard J. Webster, Ph.D., *University of Pennsylvania*
 Robert J. Young, Ph.D., *University of Pennsylvania*

ASSOCIATE PROFESSORS

Raymond A. Doyle, M.S., *West Chester University*
 Thomas J. Heston, Ph.D., *Case Western Reserve University*
 W. Bennett Peters, Ph.D., *University of California at Santa Barbara*

The Department of History offers two degrees: the Master of Arts in history; and, in cooperation with the School of Education, the Master of Education in social science with a concentration in history.

The Master of Arts degree in history provides a sound foundation for study leading to the doctorate in history as well as a background of knowledge for teachers in secondary schools and institutions of higher learning and for persons employed in industry and government. Study for the degree also enriches the cultural background of students and helps them to evaluate present events in light of the past.

The M.A. in history may be earned by completing either a thesis or non-thesis program. The candidate in the thesis program must pass a reading-proficiency test in either French or German. The candidate, with the department chairperson's approval, may substitute another language or may demonstrate competency in statistics. In the non-thesis program, the candidate does not fulfill the language requirement but takes two seminars and presents a research paper in each. Students in the Master of Arts program in history (thesis or non-thesis option) are advised by the Department of History.

The Master of Arts in social science is particularly relevant for teachers who wish to strengthen their subject-matter knowledge in more than one academic discipline. The program is also appropriate for persons employed in government or industry or for those who wish to enrich their cultural background. Those who select history as their concentration in this interdisciplinary program are advised by the Department of History.

The Master of Education in social science (history concentration) provides in-service teachers with additional professional education courses as well as with an opportunity to enlarge their understanding of the historical past. Those who select history as their concentration in this program are advised by the Department of History.

In all three programs the Graduate Record Examinations (morning and afternoon) are required for admission to degree candidacy, which should occur upon completion of 12 to 18 semester hours of graduate work.

Degree candidates must achieve at least a raw score of 1000 in the combined verbal and advanced history portions of the Graduate Record Examinations or a score of no less than the 40th percentile in the advanced history portion.

The Department of History office is located in 309 Main Hall, telephone (215) 436-2201; the graduate coordinator's office is 309 Main Hall, telephone (215) 436-2970.

MASTER OF ARTS IN HISTORY

30 Semester Hours

THESIS OPTION

- | | |
|---|---------|
| 1. Major area of concentration (American or European)
(must include two seminars) | 12 s.h. |
| 2. Minor area of concentration (either the area not chosen
above or the Third World) | 6 s.h. |
| 3. HIS 500 (Methods and Materials of Research) | 3 s.h. |
| 4. HIS 691 (Thesis) | 6 s.h. |
| 5. Elective | 3 s.h. |

NON-THESIS OPTION

- | | |
|---|---------|
| 1. Major area of concentration (American or European)
(must include two seminars) | 18 s.h. |
| 2. Minor area of concentration (either the area not chosen above
or the Third World) | 9 s.h. |
| 3. HIS 500 (Methods and Materials of Research) | 3 s.h. |

MASTER OF ARTS IN SOCIAL SCIENCE

Concentration: History

30 Semester Hours

- | | |
|--|---------|
| 1. History courses (under advisement) | 9 s.h. |
| 2. Social Science courses (from at least two other social science
disciplines than history) | 12 s.h. |
| 3. HIS 500 (Methods and Materials of Research) | 3 s.h. |

- | | |
|--|--------|
| 4. HIS 650, 651, or 652 (Seminar) | 3 s.h. |
| 5. Elective (from any department in the college) | 3 s.h. |

MASTER OF EDUCATION IN SOCIAL SCIENCE

Concentration: History

34 Semester Hours

- | | |
|--|------------|
| 1. Professional education requirements (See pages 60-61) | 12 s.h. |
| 2. History courses (under advisement) | 15-18 s.h. |
| 3. HIS 500 (Methods and Materials of Research) | 3 s.h. |
| 4. HIS 650, 651, or 652 (Seminar) | 3 s.h. |
| 5. Electives (Professional education or academic) | 0-3 s.h. |

The Department of History has approved the following undergraduate courses for graduate credit when scheduled with the approval of the student's advisor and/or the department's chairperson: HIS 406, 420, 421, 422, 423, 425, 426, 427, 435, 447, 451, 455, 462, 474.

COURSE DESCRIPTIONS

See also Social Science (SSC) following History
Symbol: HIS

500 Methods and Materials of Research in History (3) Basic techniques and procedures in research; major types of research and methods for locating, evaluating, and interpreting evidence. The student develops a tentative outline, bibliography, and summary of an investigative procedure. Required of all degree-program students.

501 Studies in the History and Culture of South Asia (3) The Indian sub-continent's dominant political, cultural, and economic institutions. Features which contribute to an understanding of modern India and Pakistan.

505 Studies in the History and Culture of East Asia (3) The traditional basis for modern Chinese, Japanese, and Korean society. The interaction between European and Asian cultures and resulting changes in East Asia.

509 Contemporary History of the Middle East (3) Recent history of major Middle Eastern societies; Iran and the oil situation; Israel and the Palestine question; conflicting cultures.

510 History of Pennsylvania (3) The founding and development of Pennsylvania from its colonial beginnings to the present, with emphasis on the relation of the past to the present.

511 Studies in the History and Culture of Emerging Africa (3) Emergence of modern African nationalism against the background of traditional African society and the legacy of European colonialism.

512 Independent Black Africa (3) The post-war experience of Sub-Saharan Africa viewed in the light of the end of European colonial administra-

tion and the growth of an independent African society.

515 The Cultural and Intellectual History of Latin America (3) Pre-Columbian art and thought, scholasticism, mercantilism, the Great Debate, Baroque architecture, Enlightenment, conservatism, liberalism, Romanticism, Modernism, Positivism, Jose Enrique Rodo, Aprismo, Mexican muralists, novel of social protest, existentialism, and music. Lineaments of the Latin-American mind.

516 Modern Mexico (3) Mexico during the 19th- and 20th-centuries; stress upon the dramatic transformation of Mexico from backwardness to modernity in the short period of a century and a half.

530 Problems in Medieval Civilization (3) Rise and fall of the Byzantine Empire, conquests of the Arabs and Turks, the crusades for the recovery of the Holy Land; the religious orders and the universal aspirations of the Papacy.

531 The Renaissance (3) Political, social, and cultural transitions in Italy and Northern Europe, 1350-1550.

532 The Reformation (3) Major and minor Protestant leaders and their movements; effects on the evolving nation-states; the Church of Rome's response; Wars of Religion and Treaty of Westphalia; the Scientific Revolution.

533 Dynastic Europe: 1648-1789 (3) The absolute dynastic monarchy as best exemplified by France, Prussia and Russia; the middle class challenge as typified by the English experience; the Enlightenment and the New Science; capitalism; colonialism, and wars of empire.

534 The French Revolution and the Napoleonic Era: 1789-1815 (3) Causes of the French Revolu-

tion, failure of absolutism, Reign of Terror, the Directory; rise of Napoleon Bonaparte and his contribution to the Revolution; the Empire—its rise and collapse; Congress of Vienna.

535 Nationalism and Democracy: 1815-1914 (3) Aftermath and effect of the French Revolutionary era; events brought on by the growth of nationalism and democracy; development of the industrial revolution. Roots of the First World War.

536 Europe Since 1914 (3) Twentieth century Europe, with emphasis on causes of World War I; Europe between World War I and World War II; problems of contemporary Europe.

540 The Evolution of Modern Russia (3) A cultural approach to the historical development of Russia from the foundation of Kiev to the Revolution of 1917. Emphasis is on Russia's political and aesthetic uniqueness.

541 Tudor and Stuart England (3) Social, cultural, religious, political, and economic developments during the Tudor and Stuart reigns; building a strong Tudor monarchy; the English Reformation; Stuart Absolutism; Puritan Revolution, Civil War and the Commonwealth; the beginning of Empire; the Restoration, Glorious Revolution, and growth of English constitutionalism.

550 Colonial America: 1607-1763 (3) Development of the thirteen colonies of Anglo-America from their settlement to mid-18th century. Emphasis on a conceptual analysis of specific events and problems.

551 Revolutionary America: 1763-1789 (3) American development from the mid-18th century to the framing of the Constitution, with emphasis on the causes of the American Revolution and the evolution of American institutions and ideas throughout the period.

553 The Rise of the New Nation: 1789-1850 (3) A historiographical approach involving interpretations of the foundations and development of the Federalist Party, emergence of Jeffersonian Democracy, evolution of Jacksonian Democracy, and events of the Middle Period leading to the decade of controversy.

554 Civil War and Reconstruction: 1850-1877 (3) The War and its aftermath as the great watershed of United States national history. Emphasis on the conflicting interpretations of the causes, nature, and effects of the Civil War.

555 Emergence of Modern America: 1876-1923 (3) Rise of industry, labor, immigration, and new cultural patterns; emergence of new political alignments, rise of imperialism, development of liberalism and reform; America's struggle for neutrality and her participation in World War I.

556 America Since 1919 (3) The impact of urbanization and industrialization upon society, politics, and economics; the problems of wars—declared and undeclared—and the various policies for peace.

557 Problems in American Constitutional Development (3) Selected problems in the development of American constitutional government. The progressive adaptation of the law to a changing social and economic order. Conflicts such as nationalism versus states' rights and vested rights versus police power.

558 Recent American Diplomatic History (3) American foreign policy in Europe, Asia, Latin America and the Middle East from 1945 to the present. Objectives sought by the United States and the political, military, economic, and social policies pursued; role of the United States in the future of underdeveloped countries.

559 American Urban History (3) Research methods and approaches for studying the history of cities in America. Emphasis on quantitative analysis, including studies of urban population, social mobility, and voting patterns.

560 American Labor Since 1865 (3) American laborers and labor organizations in the past hundred years; industrialization, immigration, and labor; women, children, and minorities in labor organizations; political parties, radical groups, and violence as factors in labor history; economic conditions and labor; Big Labor.

561 The Indian in America's Past (3) The dispossession of the American Indian; land seizures, wars, and treaties, cultural contact, customs, mores, economic and religious life of the Indian; assimilation and preservation of Indian culture.

562 Technology and American Life (3) Promises and practices of American life in response to the interaction of American forms, values and scientific-technological change from the colonial period to the present.

650 Seminar in American History (3) Selected problems in American history. Subject announced in advance of each semester. PREREQ: HIS 500, two courses in American history.

651 Seminar in European History (3) Selected problems in European history. Subject announced in advance of each semester. PREREQ: HIS 500, two courses in European history.

652 Seminar in History of the Non-Western World (3) Selected problems in non-western world history. Subject announced in advance of each semester. PREREQ: HIS 500, two courses in non-western world history.

660 Field Studies in History (3-6) A fully supervised learning experience, usually a tour, de-

signed to expose students to the culture, artifacts, and research facilities of a given country or area.

690 Independent Studies in History (1-3) Research projects, reports, and readings in history. **PREREQ:** Approval of department chairperson.

691 Thesis (3-6)

SOCIAL SCIENCE

SSC 502 Methods and Materials for Teaching Social Studies (3-6) Current practices and procedures; organization and planning; the use of

classroom, library, and curriculum materials; testing, measurements, and evaluation; bibliographical sources for both teachers and students.

SSC 580 Ethnic Cultures Institute (3) An interdisciplinary offering, the institute considers the contributions of ethnic groups to the culture of the United States. Designed primarily for teachers, community action personnel, and students who wish to increase knowledge and skills for developing meaningful intergroup relationships and improving classroom instruction. Educators and community leaders take part.



Instructional Media

Dr. Spiecker, *Chairperson and Coordinator of Graduate Studies*

PROFESSOR

Joseph M. Spiecker, Ed.D., *Nova University*

Richard L. Strayer, Ed.D., *Temple University*

ASSOCIATE PROFESSORS

David L. Redmond, M.S., *Syracuse University*

ASSISTANT PROFESSOR

Jay P. Steinmetz, M.Ed., *West Chester University*

The Department of Instructional Media offers three programs in educational media.

MASTER OF EDUCATION

This degree is offered to candidates who possess an Instructional Level I or Instructional Level II certificate, and prepares them for positions as instructional media coordinators in elementary and secondary schools and for instructional and administrative positions in colleges.

MASTER OF SCIENCE

This is a program designed for the many fields outside education where highly skilled personnel in instructional media are in growing demand. These fields encompass business, industry, religious organizations, and government. Unlike the M.Ed. program, the M.S. program does not require an undergraduate background in teaching, nor does it lead to certification.

INSTRUCTIONAL MEDIA SPECIALIST CERTIFICATION

Certification, which may be earned by completing the Master of Education degree program, may also be achieved with the completion of 24 credits in instructional media in a non-degree program. The certificate is valid for obtaining positions in instructional media in the public schools of Pennsylvania.

MASTER OF EDUCATION IN INSTRUCTIONAL MEDIA

Students admitted to the master's degree program are required to submit scores for the Graduate Record Examination Aptitude Test and/or the Miller Analogies Test during their first session (fall, spring, or summer) of enrollment.

Admission to Degree Candidacy. Upon completion of 15 semester hours, application for degree candidacy may be made by students who meet the following requirements:

1. A 3.00 average in courses in educational media.
2. A 2.75 average in over-all graduate work.
3. Successful performance on the Graduate Record Examination and/or the Miller Analogies Test.
4. Satisfactory performance on a proficiency examination in the field of educational media after completion of 12 semester hours.

The Comprehensive Examination. Admission to the comprehensive examination is gained upon admission to degree candidacy, completion of all required courses and 28 semester hours of course work.

Degree Requirement. The candidate must perform satisfactorily on the comprehensive examination and satisfactorily complete the curriculum shown below. Total curriculum involves 36 semester hours.

Required Courses: EDF 500 and EDF 510—6 semester hours.

Area of Concentration Requirements: EDM 502, 503, 519, 520, 522, 590—18 semester hours.

Area of Concentration Electives. 6 semester hours chosen under advisement from offerings in Instructional Media.

Free Electives: 0-3 semester hours (under advisement).

MASTER OF SCIENCE IN INSTRUCTIONAL MEDIA

Students admitted to this program are required to submit a score for the Miller Analogies Test during the first session of enrollment.

Admission to Degree Candidacy. Before completion of 15 semester hours, application for degree candidacy is made by students who meet the following requirements:

1. A 3.00 average in course work.
2. Successful performance on the Miller Analogies Test.
3. Satisfactory performance on a proficiency examination in educational media after completion of 12 semester hours.
4. Successful completion of a project in the area of concentration.

The Comprehensive Examination. Admission to the comprehensive examination is gained upon admission to degree candidacy, completion of all required courses, and 28 semester hours of work.

The candidate must perform satisfactorily on the comprehensive examination and satisfactorily complete the curriculum shown below. Total curriculum involves 36 semester hours.

Required Courses: EDM 502, 520, 522, 560, 563, 591—18 semester hours.

Concentration Area: Each student must pursue a concentration of 9 semester hours in one of the four following areas and at least 3 semester hours in the remaining areas.

A. Photography. EDM 525, 526, 528.

B. Cinematography. Three courses chosen from EDM 505, 529, 530, 531.

C. Television. EDM 533, 534, 535.

D. Research in Communications. EDF 500, RES 520, EDM 591, EDM 595, EDM 600.

Electives: 3 semester hours chosen under advisement. The candidate is required to show competence in, or to take a course in each of the above three areas not chosen for his concentration.

INSTRUCTIONAL MEDIA SPECIALIST CERTIFICATION

24 Semester Hours

In order to obtain this certificate the student must:

1. Hold a Pennsylvania certificate valid for teaching in the elementary or secondary schools.
2. Complete the state-approved curriculum, which consists of EDM 502, 519, 520, 522, 560, 590, and 6 semester hours of electives taken under advisement.
3. Achieve an overall average of 2.75 in the program.
4. Perform successfully on a final proficiency examination.

COURSE DESCRIPTIONS INSTRUCTIONAL MEDIA Symbol: EDM

501 Orientation to Instructional Media (3) Survey of modern educational media with opportunities for laboratory activities.

502 Theory of Selection and Effective Utilization of Instructional Media (3) Evaluates diverse types of educational media and explores means of integrating these media into the instructional situation.

503 Designing Media Packages for Individualized Instruction (3) A workshop stressing the development of individualized, mediated instructional packages using the systems approach.

505 Theory of Motion Picture Production (3) History and development of the motion picture, with emphasis on educational motion pictures. Cinematographic techniques; the impact of 35 mm., 16 mm., and 8 mm.; the single-concept instructional film. An evaluation of diverse types of films as they apply to types of learning.

508 Instructional Materials in the Elementary School Curriculum (3) Practice in techniques of using and evaluating communications media in the classroom. Correlating audio-visual materials and techniques with the elementary program.

519 Library Science (3) Organization and administration of libraries, with emphasis on instructional materials. Selecting, cataloging, and evaluating instructional materials.

520 Designing Visual Materials (3) Techniques of lettering and design for display and projection materials.

522 Production of Visual Materials (3) Basic local production techniques including copying, duplicating, mounting, displaying, and evaluating graphics and flat pictures. Investigates techniques for designing and locally producing projectuals; evaluates commercial techniques of transparency production. PREREQ: EDM 520.

524 Advanced Production of Visual Materials (3) Design and production of projectuals using technamation, color imbibition, photo-copy, and advanced diazo techniques. Investigation of commercial production of transparencies. PREREQ: EDM 522.

525 Basic Photography (3) A basic laboratory course in the taking and processing of still pictures.

526 Intermediate Photography (3) A workshop course for those who have had a basic photography course or previous photographic experience. This course will stress an aesthetic creative approach to black and white and color photography with small format cameras and will involve advanced techniques of exposure, lighting, composition, macrophotography and film and print processing. PREREQ: 525.

528 Advanced Still Photography (3) Lecture and laboratory experiences in the use of large-format cameras. PREREQ: EDM 525.

529 Production of 8 mm. Motion Pictures (3) Prepares teachers to produce and/or guide students in the production of 8 mm. films.

530 Cinematography I (3) Scripting and shooting 16 mm. motion pictures.

531 Cinematography II (3) Editing and sound recording on 16 mm. films. PREREQ: EDM 530.

533 Basic TV Production I (3) Development of educational television and the instructional use of commercial, educational, and closed-circuit television in the classroom.

534 Instructional Television Production II (3) Planning, writing, producing, and evaluating instructional television productions. PREREQ: EDM 533.

535 Instructional Television Production III (3) Production of telecasts in selected subject areas with emphasis on videotape recording. PREREQ: EDM 534.

560 Organization and Administration of Media Program I (3) The function of the school's educational media program; selection and evaluation of materials and equipment; unit costs; problems of developing and maintaining an efficient operation. PREREQ: 12 graduate credits in educational media.

563 Field Study of Media Programs (3) A scheduled group or individual tour, foreign or

domestic, in which students investigate notable installations or projects in educational media.

565 Seminar in Mass Media (2) Explores current problems in the use of instructional media. PREREQ: 12 graduate credits in educational media.

590 Internship Program in Instructional Media (3) Practicum in supervising and implementing instructional services. PREREQ: 18 credits in educational media.

591 Seminar in Research in Communications (3) Basic elements of communication theory, applied to audio-visual education. Research in audio-visual communication is analyzed.

595 Independent Studies in Instructional Media (1-3)

598 Workshop—By Design (1-6)

600 Research Report (2)



Leadership for Women

Dr. Rengert, *Program Concentration Advisor*
Dr. Milne, *Program Coordinator*

Leadership for Women is a concentration in the Master of Science in Administration Program. It addresses the problem of organizational power sometimes being inequitable for men and women of equal training and talent. It recognizes that women who seek to advance to leadership positions often become change agents within the organization—and sometimes within their family and community as well.

This concentration within the master's program consists of four required and two elective courses. They involve reading and study of feminist perspectives on initiating, responding to, and managing change. They examine theories and practices which clarify values. They contain models and strategies for resolving the conflicts and logistical dilemmas vital to a successful administrative career that differs from conventional sex role ascription of status and power.

Courses may be taken individually. For the full concentration the following four courses are required:

- ADM 530 Women in Leadership: Critical Issues
- ADM 531 Management of Leadership: Laboratory Course
- ADM 533 The Woman Executive: Research Seminar

PSY 565 Psychology of Women

The student chooses two electives from among:

- ADM 539 Research Project
- PSC 515 Women in Politics
- ECO 503 Economic Role of Women
- SWO 521 Social Work with Women in Transition
- PSC 552 Civil Rights and Civil Liberties
- GEO 530 Demographic Analysis

Other electives are possible under advisement.

COURSE DESCRIPTIONS

ADMINISTRATION

Symbol: ADM

530 Women in Leadership: Critical Issues (3) Survey of the literature which defines and discusses critical issues for the woman leader. Some issues center around lifestyle choices and conflicts (loneliness, family pressure) and others around organizational barriers and alternative means to overcome them.

531 Management of Leadership: Laboratory Course (3) The study and practice of alternative

leadership modes. The course uses workshop techniques to teach assertiveness, speech and other communication skills, and problem solving strategies. One weekend workshop, offered 8-10 weeks into the semester, is mandatory.

533 The Woman Executive: Research Seminar (3) A seminar which requires each student to complete an original project on the goals, problems, choices, or successes of women in middle or upper-level management positions. The use of case studies, surveys, oral history, and other research techniques will be explored.



Linguistics



(Interdisciplinary Area)

Dr. Falgie and Dr. Smith, *Coordinators*

LINGUISTICS GROUP

Diane O. Casagrande
(*Speech and Theatre*)
W. Stephen Croddy
(*Philosophy*)
Joseph Falgie, Jr.
(*English*)

John T. Kelly
(*English*)
Willie E. Page, Jr.
(*English*)

Philip D. Smith, Jr.
(*Foreign Languages*)
Paul Stoller
(*Anthropology-Sociology*)

Although West Chester presently offers no degree in linguistics, students interested in developing a concentration in this area may elect courses from the following list. For additional information consult one of the coordinators.

COURSE DESCRIPTIONS

LINGUISTICS

Symbol: LIN

501 Introduction to Linguistics (3) Basic concepts of language description, classification, change, reconstruction, dialectology and sociolinguistics.

503 Phonology and Morphology (3) Phonetics, phonemics, morphophonemics, and the morphological composition of words.

504 Syntax (3) A comparative study of the various modern approaches to the study of grammar. PREREQ: LIN 501 or ENG 575.

505 Transformational Grammar (3) Basic concepts of transformational theory and their application in teaching. PREREQ: LIN 501 or ENG 575.

506 Meaning in Language (also PHI 506) (3) See PHI 506.

512 Descriptive Linguistics (3) Analysis of the phonemic, morphological, and syntactic features of typologically divergent languages. Procedures for eliciting linguistically relevant data about a

language from a native speaker. PREREQ: LIN 503.

515 General Semantics (also SPC 515) (3) See SPC 515.

523 Philosophy of Language (also PHI 523) (3) See PHI 523.

540 Sociolinguistics (also SOC 540) (3) The study of language in its social context: the ethnography of communication; language and society, social classes, ethnic groups, politics, sex, and education. PREREQ: LIN 501 or permission of instructor.

555 Psycholinguistics (also PSY 555) (3) An introduction to the study of the relationships between language and thought. Models of language, communication theory, and learning theory. Major emphasis on natural language development and bilingualism.

580 Language and Culture (also ANT 580) (3) Language as an aspect of culture; linguistic-perceptual-cognitive categories; social and psychological aspects of language. PREREQ: LIN 501 or permission of instructor.

590 Independent Study (1-3)

Mathematical Sciences

Dr. Weaver, *Chairperson*

Dr. Mandelbaum, *Coordinator of Graduate Studies*

PROFESSORS

Richard G. Branton, Ph.D., *University of Pennsylvania*

James D. Fabrey, Ph.D., *Massachusetts Institute of Technology*

Albert E. Filano, Ph.D., *Pennsylvania State University*

Frank Grosshans, Ph.D., *University of Chicago*

Sebastian S. Koh, Ph.D., *University of California*

James E. L'Heureux, Ph.D., *Louisiana State University*

Eli M. Mandelbaum, Ph.D., *University of Pennsylvania*

Michael Montemuro, Ed.D., *Temple University*

John W. Weaver, Ph.D., *Johns Hopkins University*

ASSOCIATE PROFESSORS

Thomas J. Ahlborn, M.A., *Kent State University*

Wesley E. Fasnacht, M.S., *State University of New York at Buffalo*

John J. Kerrigan, D.Ed., *Temple University*

Elaine R. Milito, Ph.D., *Pennsylvania State University*

Frank E. Milliman, A.M., *Columbia University*

Ronnie L. Morgan, Ph.D., *University of Missouri*

Joseph G. Moser, M.S., *Purdue University*

William H. Seybold, Jr., M.A., *Northwestern University*

C. Ralph Verno, M.S., *University of Pennsylvania*

ASSISTANT PROFESSORS

Howard Edelman, M.S., *University of Delaware*

Li-feng Hsu, M.S., *West Chester University*

Francoise E. Schremmer, Ph.D., *University of Pennsylvania*

Ruth S. Stanley, M.A., *University of Oklahoma*

Mark Wiener, M.A., *University of Illinois*

Paul Wolfson, Ph.D., *University of Chicago*

The Department of Mathematical Sciences offers the Master of Arts degree with options in pure mathematics, mathematics education, and applied computer science.

The first option is for students interested in furthering their mathematical background. It provides the foundation for continued work in mathematics leading to the Ph.D. degree in pure mathematics.

The second option is primarily directed to teachers of mathematics who wish to strengthen their background in mathematics and mathematics education; in addition it provides the foundation for the Doctor of Arts or the Ph.D. degree in mathematics education.

The last option is primarily for those with backgrounds in mathematics or science, preparing them for computer technology and its applications. Students with other backgrounds may tailor their programs to satisfy their particular needs and professional goals.

The department also offers the Master of Science in computer science. It has two primary options: a research program for students with an undergraduate degree in computer science, and a professional program for students with an undergraduate degree in areas other than computer science.

The department also cooperates with the School of Education in offering the Master of Education degree in mathematics.

Admission to the M.A. Program

In addition to meeting the basic admission requirements of the university, applicants—prior to enrollment—must schedule an interview with the department chairperson. Applicants must present a minimum of 30 semester hours of mathematics including a full treatment of calculus and at least one advanced undergraduate course in modern algebra and one in advanced calculus. Deficiencies in these areas may be removed by successfully completing MAT 512—Modern Algebra and/or MAT 541—Advanced Calculus. At the discretion of the department, the Graduate Record Examination may be required.

Admission to the M.S. Program

In addition to meeting the basic admission requirements of the university—applicants must have completed course work in computer science and mathematics, including CSC 505-508, 561, three semesters of applied calculus and one semester of statistics. Deficiencies in these areas may be removed by appropriate courses approved by the program advisor.

Admission to the M.Ed. Program

In addition to meeting the basic admission requirements of the university, applicants—prior to enrollment—must schedule an interview with the department chairperson. Applicants must present a minimum of 24 semester hours of mathematics including a full treatment of calculus and at least one advanced undergraduate course in modern algebra or advanced calculus. Deficiencies in these areas may be removed by successfully completing MAT 512—Modern Algebra or MAT 541—Advanced Calculus.

Requirements for the M.A., M.S., and M.Ed. Degrees

In addition to completing the course requirements shown below, candidates for either degree must pass a comprehensive oral examination.

MASTER OF ARTS IN MATHEMATICS**30 Semester Hours**

Core Courses: Candidates in all options are required to take 9 semester hours including MAT 515, 545, and either MAT 575 or an approved course in statistics or applied mathematics.

Required Courses: 12 semester hours

- A. Pure Mathematics Option: MAT 516, 535, 546, 575 (or 576 if 575 is selected for Core).
- B. Mathematics Education Option: MTE 504, 507, 508, and one of the following: MTE 505, 551, or 552.
- C. Applied Computer Science Option: as specified by student's graduate committee chairperson depending on student's background and experience.

Electives (9 semester hours): Chosen under advisement from the course offerings below bearing the prefix MAT or STA except MAT 503, 512, and 541.

Modifications in this program may be made with the approval of the department chairperson.

MASTER OF SCIENCE IN COMPUTER SCIENCE**30 Semester Hours.**

Core Courses (12 semester hours): CSC 525, 590, 599 (2 semesters—2 semester hours each).

Required Courses (12 semester hours): Chosen under advisement from the following: CSC 521, 531, 535, 541, 543, 571, 581, 610, 620.

Electives (6 semester hours): Chosen with the approval of advisor from course offerings bearing the prefix CSC, MAT, or STA, or involving the application of computer science to another discipline, such as psychology, economics, physics, etc.

MASTER OF EDUCATION IN MATHEMATICS

34 Semester Hours

The candidate must satisfy the Professional Education Requirements as outlined on pages 63-64.

In the area of concentration (20-22 semester hours) MAT 515, 545, MTE 507, and either MTE 508 or 509 are required. Electives (8-10 semester hours) are chosen under advisement from the course offerings below bearing the prefix MAT or STA.

Modifications in the area of concentration may be made with the approval of the department chairperson.

COURSE DESCRIPTIONS

COMPUTER SCIENCE

Symbol: CSC

501 Introduction to Computers (3) Prepares the student to program and use the computer for various needs. The student writes a number of programs including a major programming project relative to his or her academic major. Primarily for non-majors. The structured BASIC language is used.

505 Introduction to Computer Science (3) Introduction to the art and science of computing and its applications. Topics covered are elementary data structures, structured programming techniques, algorithm development, graphics display, error analysis, and file manipulation. A final substantive programming project is required of each student. The PASCAL language is used. PREREQ: Two years of high school algebra.

506 Applied Software (3) Techniques of program design, documentation, and implementation, such as top-down design, modularization, structured coding, structured walk-thru and programming teams. The COBOL language is used to acquaint the student with commercial computing requirements. PREREQ: CSC 505 or equivalent.

507 Data Structures (3) Data structures are presented with the primary language being advanced PASCAL. PREREQ: CSC 505. Offered in fall and spring.

508 Computer Organization (3) Study of the architectures of various computer systems and their native language. Use of assembler languages, including macros and parameter passing. Development of more complex data structures.

PREREQ: CSC 507 or permission of instructor. Offered in spring, fall, and summer.

510 Computer Programming and Numerical Methods (3) Algorithmic methods. The computer is used to solve a variety of numerical and non-numerical problems. PREREQ: CSC 501 or equivalent and one year of calculus.

515 Introduction to Computer Science with APL (3) The art and science of computing is introduced via the language APL. (Different languages are used in CSC 501 and CSC 505.) PREREQ: Two years of high school algebra. Offered in summer.

521 Data Base Management Systems (3) Detailed study of the characteristics of generalized data management systems, including a survey of some of the systems in widespread use. Emphasis is placed on techniques for improving the interface between a manager and the information he or she needs to make decisions through easy-to-use generalized reporting systems. PREREQ: CSC 507 and 508 or equivalent. Offered in fall and spring.

525 Systems Design (4) General techniques of systems design are presented and related to an actual case study from local business/industry. PREREQ: Degree candidacy.

531 Operating Systems (3) Operating systems and their user characteristics are studied. Maintenance of a complex operating system with emphasis on the important trade-offs made in tuning the system. Details of core and file management, system accounting, and other user-related services. PREREQ: CSC 507 or equivalent. Offered in fall.

535 On-Line Computing (3) Characteristics of data communication equipment. Design, imple-

mentation, and modification of information systems in an on-line environment. File management systems and data structures appropriate to real-time computing with particular emphasis on back-up and recovery techniques. PREREQ: CSC 508 or equivalent. Offered in spring.

541 Compiler Construction (3) Translation, loading, and execution of a higher-level language. Syntax analysis of simple expressions and statements. Organization of a compiler, including compile-time and run-time symbol tables, error diagnostics, and object code optimization. Design and implementation of a simple compiler. PREREQ: CSC 507 and 508 or equivalent. Offered in spring.

543 Formal Languages (3) A study of the various types of automata and their associated languages. Designed to give a student an understanding and appreciation of the production system for languages and their relationship to automata. PREREQ: CSC 508 or equivalent. Offered in fall—even years.

550 Computers in Education (3) An introductory computer literacy course. Students will become familiar with microcomputers in a "hands on" setting. After learning to program in BASIC students will create computer based activities for use in their own professional settings.

561 Simulation (3) Computer simulation utilizing logical, numerical, and Monte Carlo modeling to represent systems. Use of special languages to simulate actual systems. PREREQ: CSC 501 (or equivalent), calculus, linear algebra and statistics. Offered in spring, fall, and summer.

571 Computer Graphics (3) Construction and manipulation of prototypes for graphical display purposes. PREREQ: CSC 507 (or equivalent) and calculus and linear algebra. Offered in spring.

581 Artificial Intelligence (3) Thorough analysis and study of the LISP language in its application to non-numeric problems and symbol manipulations. Application to gaming, scene analysis and pattern recognition, linguistic analysis and semantic representation, image analysis and solution spaces, problem solving and attention control. Each student is required to take one substantial problem and solve it using the LISP language and the techniques of artificial intelligence. PREREQ: CSC 508 or equivalent. Offered in fall during odd years.

590 Software Engineering (4) Programming teams design and implement a realistic, fairly complex, software system. Design techniques, analysis, programming style, testing, and documentation will be stressed. PREREQ: Degree candidacy.

595 Topics in Computer Science (3) Topics an-

nounced at time of offering. PREREQ: consent of instructor. Offered as needed.

599 Journal Seminar (2) Student, in conjunction with professor, selects topics to be studied in depth via literature search, reading of pertinent articles, and speaking in the seminar. PREREQ: CSC 525 or 590.

610 Thesis (6) An expository thesis based on intensive study of a subject of contemporary interest. PREREQ: Approval and supervision by an appropriate faculty member.

620 Research Thesis (6) A research thesis presenting new and significant contributions to the field. It is normally completed by former undergraduate majors in computer science. PREREQ: Approval and supervision by an appropriate faculty member.

MATHEMATICS

Symbol: MAT

503 History of Mathematics (3) Development of mathematics from prehistoric time to present. Emphasis on changes in the mainstreams of mathematical thought through the ages.

506 Fundamentals of Mathematics for Physics (3) A critical examination of mathematics from the viewpoint of its physical applications.

512 Modern Algebra (3) For students with background deficiencies in algebra. Abstract mathematical systems studied include groups, rings, and fields. Offered in summer.

513 Linear Algebra (3) Vectors, vector spaces, determinants, linear transformations, matrices, bilinear and quadratic forms. PREREQ: MAT 512 or equivalent.

514 Theory of Numbers (3) Elementary number theory and selected topics in analytic number theory.

515 Algebra I (3) Elements of abstract algebra. Groups, commutative ring theory, modules, and associative algebras over commutative rings. PREREQ: MAT 512 or equivalent. Offered in fall—odd years.

516 Algebra II (3) A continuation of MAT 515. Vector spaces, representation theory, and Galois theory. PREREQ: MAT 515. Offered in spring—even years.

517 Topics in Algebra (3) Advanced algebraic theories. Homological algebra, algebraic geometry, and algebraic number theory. PREREQ: MAT 516.

532 Modern Geometry (3) Foundations of geometry. Axiomatics, and the structure of a geometric system. Euclidean geometry from the standpoint of the Euclid and Hilbert postulates.

Certain topics in projective and hyperbolic geometry.

533 Projective Geometry (3) An algebraic approach to projective geometry. Invariant theory, projective spaces, conics and quadratic forms, subgeometries of real projective geometry.

535 Topology (3) Filters, nets, separation axioms, compactness, connectedness, uniform spaces.

536 Algebraic Topology (3) Algebraic topological invariants. Homotopy theory; simplicial, singular and Čech homology; cohomology theories. PREREQ: MAT 516, MAT 535.

541 Advanced Calculus (3) For students with background deficiencies in analysis. Ordinary and uniform limits; sequences of functions; the Riemann integral. Offered in summer.

543 Topics in Differential Equations (3) Advanced topics. Existence and uniqueness theorems, stability theory, singular points, regular singular points. Sturm separation theorem and the "method of Liapunov."

545 Real Analysis I (3) A rigorous study of real valued functions of real variables. PREREQ: MAT 541 or equivalent. Offered in fall—even years.

546 Real Analysis II (3) Continuation of MAT 545. PREREQ: MAT 545. Offered in spring—odd years.

570 Mathematical Models in the Life, Physical, and Social Sciences (3) Techniques and rationales of model building. Applications to the life, physical, and social sciences.

572 Proseminar (3) Seminar in generating and solving problems in mathematics.

575 Complex Analysis I (3) A rigorous study of complex valued functions of complex variables.

576 Complex Analysis II (3) Continuation of MAT 575. PREREQ: MAT 575.

581 Methods of Applied Mathematics (3) Vector analysis, complex analysis. Fourier analysis and Sturm-Liouville Theory.

583 Operations Research and Applied Mathematics (3) Topics in applied mathematics. Linear and dynamic programming, game theory, extreme value problems, inventory, allocation, and queuing and search problems.

599 Independent Study (1-3) Offered as needed.

610 Thesis (3-6) Offered as needed.

MATHEMATICS EDUCATION

Symbol: MTE

501 Fundamental Concepts of Mathematics I

(3) Selected topics which reflect the spirit of the modern mathematics currently taught in the elementary school. PREREQ: A one-semester undergraduate course in modern mathematics.

502 Fundamental Concepts of Mathematics II (3) Topics selected by mutual decision of students and professor on the basis of the experience in MTE 501. PREREQ: MTE 501.

504 Research in Mathematics Education (3) Techniques of research in mathematics education. Analysis of types of research; selection of a problem; formulation of a plan of investigation and report, including statistical analysis.

505 Research Techniques in Mathematics Education (3) Statistical principles in experimental design. General linear model correlation, regression, statistical inference, analysis of variance, factorial designs. Critiques of current literature.

507 Current Trends in Teaching Mathematics (3) Philosophy, techniques, subject matter, and effectiveness of current secondary school mathematics courses examined against the changing character of American society and technology.

508 Topics in Mathematics Education (3) Topics announced in advanced. Typical topics include teaching mathematics to the slow learner, methods of research in mathematical education, mathematics laboratories, and individualized instruction.

509 Seminar in Mathematics Education (3) Topics depend upon student interest. Student presentations required; informal discussion encouraged. Guests, including secondary school principals and mathematics curriculum coordinators, frequently participate.

510 Algebra for the Elementary Teacher (3) An introduction to modern algebra. Topics include a comparative study of mathematical systems. PREREQ: MTE 501 or equivalent.

530 Geometry for the Elementary Teacher (3) Basic concepts in geometry. Euclidean geometry and postulative systems. PREREQ: MTE 501 or equivalent.

550 Topics in Mathematics for Elementary School Teachers (3) In-depth coverage of topics in mathematics introduced in grades K-8. Topics include: number theory, probability, statistics, inequalities, introduction to the computer. Emphasis among these and inclusion of additional topics depend upon student preparation and need. PREREQ: MTE 501 or equivalent.

551 Mathematics for the Disadvantaged (3) Examination of current programs in mathematics for the disadvantaged; discussion of the pertinent research literature; development of materials and techniques for teaching the slow learner and low achiever.

552 Materials for Teaching Secondary School Mathematics (3) Examination of available commercial materials for the teaching of mathematics; creation of new and original materials for specific mathematical concepts and specific needs of class members.

553 Teaching Elementary School Mathematics (3) In-depth treatment of strategies, methods, and materials for teaching the following concepts in an elementary classroom: place value; addition, subtraction, multiplication, and division of whole numbers; measurement; elementary number theory; geometry; fractions; integers. **PRE-REQ:** MTE 501 or equivalent.

554 Current Trends in Teaching Elementary School Mathematics (3) History and development of the modern elementary school mathematics programs. Theories and findings of recent and contemporary learning theorists are investigated. Modern organizational strategies surveyed include team teaching, individualized instruction, open space, etc. Contemporary instruction strategies such as individualized learning systems, mathematics laboratories, individually prescribed instruction, etc., are studied. **PREREQ:** MTE 501 or equivalent.

556 Development of Mathematics Curricula in the Elementary Grades (3) for the development of a specialty in modern elementary school mathematics education. Curriculum development techniques; selection and analysis of materials; individualization of instruction programs, techniques, and media. **PREREQ:** MTE 501 or equivalent.

558 Teaching Mathematics in the Junior High School (3) Methods and materials for teaching the concepts of middle school and junior high school mathematics. Objectives are developed, and serve as the basis for all course work. Current textbooks, achievement tests, and audio-visual materials are reviewed.

560 Teaching Algebra in the Secondary School (3) Methods and materials for teaching the concepts of first and second year algebra. Emphasis on relevant applications to real-life situations. Objectives as well as criterion-referenced test items are developed for pre-algebra as well as for the two algebra courses. Current textbooks achievement tests, and audio-visual materials on algebraic topics are reviewed.

561 Calculus for Teachers (3) Analytic geometry of both the straight line and conics, and elements of the calculus of functions of a single real variable are reviewed. Topics include: limits, continuity, the derivative and integral and their applications, curve sketching and polar coordinates. Emphasis on methods of teaching these topics to secondary school students.

562 The Laboratory Approach to Teaching Elementary School Mathematics (3) The materials-oriented approach to teaching elementary school mathematics, including cuisenaire rods, the geoboard, attribute games, tangrams, multibase blocks. Emphasis on learners' participation in activities directly related to mathematics of the elementary school. Use of materials extends to all grade and ability levels.

563 Use of the Mathematics Laboratory in the Secondary School (3) Laboratory investigations and the curriculum; planning laboratory investigations; facilities for the laboratory approach; assessing the effectiveness of this approach with the low, average, and high achiever in the secondary school.

564 Individualizing Instruction in Secondary School Mathematics (3) Analysis of current programs for individualizing instruction in secondary school mathematics (IDEA, PLAN, Nova, Research for Better Schools, and Coatesville Project); analysis and development of an individualized instruction unit with performance objectives, criterion-referenced test items, media orientation, and appropriate tools for evaluation.

567 Teaching Geometry in the Secondary School (3) Methods and materials for teaching the concepts of geometry in the secondary school. Emphasis on the development of relevant applications of the concepts of geometry in real-life situations.

568 Seminar for Secondary School Mathematics Teachers (3) Selected topics of current interest in secondary school mathematics for the in-service teacher.

569 Seminar for Elementary School Mathematics Teachers (3) Selected topics of current interest in elementary school mathematics for the in-service teacher.

599 Independent Study (1-3)

610 Thesis (3-6)

STATISTICS Symbol: STA

521 Statistics (3) For non-mathematics majors. Emphasis on applications to education, psychology, and the sciences. Distributions, measures of central tendency and variability, correlation, regression and hypothesis testing, other topics.

523 Mathematical Statistics I (3) A rigorous treatment of probability spaces and an introduction to the estimation of parameters.

524 **Mathematical Statistics II (3)** Continuation of STA 523. Correlation, sampling, tests of significance, analysis of variance, other topics. PREREQ: STA 523.

525 **Probability (3)** An advanced approach to the elements of probability. Discrete and continuous random variables, probability distributions, sampling distributions.

599 **Independent Study (1-3)** Offered as needed.

SERVICE COURSES IN MATHEMATICAL SCIENCES

COMPUTER SCIENCE (CSC)

501 Introduction to Computers

550 Computers in Education

MATHEMATICS EDUCATION (MTE)

501 Fundamental Concepts of Mathematics I

502 Fundamental Concepts of Mathematics II

510 Algebra for the Elementary Teacher

530 Geometry for the Elementary Teacher

550 Topics in Mathematics for Elementary School Teachers

553 Teaching Elementary School Mathematics

554 Current Trends in Teaching Elementary School Mathematics

556 Development of Mathematics Curricula in the Elementary Grades

558 Teaching Mathematics in the Junior High School

560 Teaching Algebra in the Secondary School

561 Calculus for Teachers

562 The Laboratory Approach to Teaching Elementary School Mathematics

563 Use of the Mathematics Laboratory in the Secondary School

564 Individualizing Instruction in Secondary School Mathematics

567 Teaching Geometry in the Secondary School

568 Seminar for Secondary School Mathematics Teachers

569 Seminar for Elementary School Mathematics Teachers

STATISTICS (STA)

521 Statistics



Music

Dr. Sullivan, *Director*

Dr. Singleton, *Advisor for Graduate Studies*

DEPARTMENT OF MUSIC EDUCATION

Dr. Singleton, *Chairperson*

PROFESSORS

Margaretta A. Carey, Ed.D., *Pennsylvania State University*

Richard C. Merrell, Ed.D., *Pennsylvania State University*

Ira C. Singleton, Ph.D., *New York University*

C. Wayne Stringer, Ed.D., *Columbia University; Diploma in Kodaly, Danube Bend University*

James R. Wells, Ed.D., *Columbia University*

ASSOCIATE PROFESSOR

Carol Belmain, D.M.A., *Temple University*

ASSISTANT PROFESSOR

Karen Markey, M.Ed., *West Chester University, Orff Certification, Levels I, II, III*

DEPARTMENT OF MUSIC HISTORY

Dr. Schmidt, *Chairperson*

PROFESSORS

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 Constantine Johns, Ed.D., *Columbia University*
 Sterling Murray, Ph.D., *University of Michigan*
 Frederick C. Pflieger, Ph.D., *West Virginia University*
 Liselotte M. Schmidt, Ed.D., *Columbia University*

ASSISTANT PROFESSOR

Mary Vinquist, Ph.D., *University of North Carolina*

DEPARTMENT OF MUSIC THEORY AND COMPOSITION

Dr. Wilkinson, *Chairperson*

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 Larry A. Nelson, Ph.D., *Michigan State University*
 Harry Wilkinson, Ph.D., *Eastman School of Music*

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 James McVoy, Ph.D., *Eastman School of Music*
 James D. Sullivan, M.A., *Eastman School of Music*

INSTRUCTOR

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 Ted Hegvik, M.M., *University of Michigan*
 Eugene Klein, M.M.E., *Indiana University*
 H. Lee Southall, M.A., *Trenton State College*

ASSISTANT PROFESSORS

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 Terry E. Guidetti, M.Mus., *Northwestern University*
 Emily T. Swartley, M.Mus., *Temple University*

INSTRUCTORS

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 Glenn Lyons, M.Mus., *Peabody Conservatory of Music*
 Jane Richter, M.Mus., *Temple University*

DEPARTMENT OF KEYBOARD MUSIC

Dr. Lee, *Chairperson*

PROFESSORS

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 Robert Schick, A.Mus.D., *Eastman School of Music*
 Charles A. Sprenkle, D.Mus. A., *Peabody Conservatory of Music*
 Richard K. Veleta, D.Mus., *Northwestern University*

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 Patricia Taylor Lee, D.M.A., *Temple University*
 Praxiteles Pandel, M.S., *The Julliard School*
 Jacques C. Voois, M.Mus., *Manhattan School of Music*
 W. Benjamin Whitten, M.Mus., *Peabody Conservatory of Music*

ASSISTANT PROFESSORS

Robert C. Lucas, M.D., *University of Michigan*

INSTRUCTOR

Richard W. Fields, M.M., *The Julliard School*

DEPARTMENT OF VOCAL AND CHORAL MUSIC

Mr. Sweet, *Chairperson*

ASSOCIATE PROFESSORS

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 W. Larry Dorminy, D.Mus., *Indiana University*
 Mary Lou Frenz, M.Mus., *Westminster Choir College*
 H. Raymond Friday, M.Mus., *Diploma, Academy of Vocal Arts*
 Emil M. Markow, M.A., *Columbia University*
 Jane E. Sheppard, M.Mus., *Indiana University*
 Roy D. Sweet, M.Mus., *Eastman School of Music*
 Joy Vandever, M.Ed., *West Chester University*
 G. Alan Wagner, M.F.A., *Carnegie-Mellon University*
 Lois M. Williams, M.A., *Columbia University; Fulbright Scholar (Germany 1953-1955)*

ASSISTANT PROFESSOR

Stella F. Conaway, M.Mus., *The Philadelphia Academy of Music*

The School of Music offers programs leading to the Master of Music degree with concentrations in music education, performance, accompanying, music theory, or composition; and the Master of Arts degree in history and literature of music. Course selections to meet degree requirements are made by candidates in consultation with their advisors and with due consideration of the candidate's goals, abilities, needs, and interests.

Admission to Degree Programs in Music

In addition to meeting basic university requirements, stated in Admission, applicants for degree programs are considered on the basis of academic record, interviews, preliminary tests, and auditions. Prior to enrollment:

All applicants must (1) possess appropriate undergraduate degrees and may be required to remedy not more than 12 credits of undergraduate deficiency if the undergraduate degree is not in the area of the intended graduate degree; (2) schedule interviews with the appropriate department chairperson in the School of Music.

Performance applicants must (1) schedule an interview with the chairperson of the appropriate applied music department; (2) submit a repertoire list; (3) demonstrate performance ability at an advanced level by performing for an audition committee.

Accompanying applicants must (1) schedule an interview with the chairperson of the Keyboard Department; (2) submit transcripts showing completion of a bachelor's degree in music, including one year (6 semester hours) of a foreign language, French, German, or Italian preferred; (3) demonstrate accompanying ability at an advanced level by performing

for an audition committee, including piano technique, solo repertoire, accompaniments, and sight reading.

Voice applicants must (1) demonstrate advanced performance ability; (2) audition with a program that includes early Italian art song, German lied, French melodie, opera and oratorio; (3) demonstrate diction competency in at least Italian, German, and French; (4) submit a repertoire list; (5) schedule an interview with the department chairperson.

Piano Pedagogy applicants must (1) submit transcripts showing completion of a bachelor's degree; (2) schedule an interview with the Keyboard Department chairperson; (3) schedule an entrance examination which will consist of scales, arpeggios, solo repertoire from various stylistic periods, and sight reading. Applicants whose undergraduate degrees are not in music may be accepted into this program if they demonstrate equivalent background in piano.

Theory and/or Composition applicants must (1) schedule an interview with the chairperson of the Department of Music Theory and Composition; (2) demonstrate sufficient pianistic ability to meet the demands of the program. Composition applicants must, in addition, submit original works showing technical facility in composition.

Music History and Literature applicants must (1) schedule an interview with the chairperson of the Department of Music History; (2) arrange for the required test in basic principles of music history and style-critical analysis.

All applicants must present evidence of a reading knowledge of a foreign language, preferably French or German. Students found lacking in this area must remove this deficiency before graduation.

DEGREE REQUIREMENTS

Note:

Each degree candidate is individually responsible for satisfying degree candidacy and graduation requirements stated elsewhere in this catalog, and for meeting deadline dates for the May, August, or December graduation, as appropriate.

Master of Music in Music Education. Students may choose either the thesis program of 30 semester hours or the non-thesis program of 34 semester hours. Both programs require completion of 9 credits in 3 core courses: MUE 500, 503, 510. Additional course requirements are:

Thesis program: 6 credits in music education; 6 credits in music electives; 3 credits in free electives; 6 credits in research (MUE 691, 692, 699).

Non-thesis program: 6 credits in music education; 3 credits in applied music; 3 credits in structure and organization of music; 3 credits in literature and history of music; 0-3 credits in unrestricted electives; 4 credits in research (MUE 691, 692, 698) or recital option (MUE 691, 696, Individual Lessons). Candidates desiring to pursue the recital option in voice must audition before the voice jury and receive permission to pursue that option before fifteen (15) graduate hours have been earned or at the completion of VOI 562, whichever comes first.

Master of Music in Performance. All programs require completion of one course in music history and literature (3) and one course in music theory and composition (3), as well as one of the concentrations described below.

Piano Concentration: 10 credits in individual lessons at the advanced level, PIA 541-45; 6 credits in keyboard literature chosen from PIA 601, 602, 603, 604; 2-3 credits chosen from KEN 546, MAK 558, PIA 611.

Accompanying Concentration: 4 credits in individual lessons at the advanced level. PIA 570, 571; 8 credits of Ensemble, PIA 574, 575; 9 credits in cognate courses, PIA 572, 573, 576, 577; 3 credits in electives chosen from NAV 511-14, VOC 515, 516, or any curriculum in the university.

Organ Concentration: 10 credits in individual lessons at the advanced level, ORG 541-45; 6 credits in organ literature; 3 credits chosen from ORG 551, ORG 590.

Piano Pedagogy Concentration: 4 credits in individual lessons (PIA 578, 579); 16 units in piano pedagogy (PIA 580, 581, 582, 583); 6 units in keyboard literature (chosen from PIA 601, 602, 603, 604); 3-6 units of supportive work in music history and/or music theory; and 3-6 units of supportive work in methodology, psychology, and philosophy of education (selected from the Departments of Music Education; Childhood Studies and Reading; Psychology; and Counselor, Secondary, and Professional Education).

Voice Concentration: Required 10 credits in individual lessons at the advanced level (VOI 541-545) and a recital (VOI 697). 7-9 credits chosen from VOC 511, 512, 513, 514, 515, 516, 524, 526, 529, 546, 591, and 612.

Instrumental Concentration: 10 credits in individual lessons at the advanced level (541-45, 2 credits each); INS 511 and 697 (2 cr.); 5-6 credits chosen from ICO 512 (2), INS 552, 553, 554, 555, or 556 (3); 4-5 credits in free electives (30 credits).

Master of Music in Theory or Composition. Both programs require completion of 23-24 credits in one of the areas of concentration; 3-4 credits of unrestricted electives; 3-4 credits in research (including thesis in theory or composition).

The areas of concentration, directed electives, and free electives are described fully in a student handbook compiled by and available from the graduate advisor of the School of Music. Specific information as to the nature of the courses or the program may be obtained from the department chairperson.

Master of Arts in Music History. 15 credits in five courses offered by the Department of Music History (Three must be chosen from MHL 640-645); 6 credits in research and bibliography (MHL 670 and MHL 699); 9 credits in electives (music and related disciplines).

COURSE DESCRIPTIONS

MUSIC EDUCATION

Symbol: MUE (unless otherwise shown)

500 Methods and Materials of Research (3) Basic techniques and procedures. Major types of research. Methods for locating, evaluating, and interpreting evidence. Preparation of a research outline.

503 Philosophical Foundations of Music Education (3) Historical and philosophical foundations of music education. Application of principles of education to music. Major emphasis on development of a philosophy of the discipline.

510 Current Trends in Music Education (3) Present practices and emerging developments in music education.

511 Vitalizing Music in the Elementary School (3) Study of song series, instruments, and materials in current use in the elementary classroom.

512 Teaching Music Listening at the Elementary Level (3) For the elementary classroom and music teacher. Teaching elements of music and musical concepts, and developing aesthetic sensitivity through listening.

513 Music Education in the Elementary School (3) For the music educator. Problems, procedures, and materials in the elementary school classroom. PREREQ: Elementary music methods, teaching experience.

514 Music Education in the Secondary School (3) The music curriculum in the secondary school. Emphasis on conceptual learning, structured curriculum, independent study, aesthetic experience and current materials. PREREQ: Secondary school music methods, teaching experience.

516 Administration and Supervision of School Music (3) Administrative problems, curricular content and scheduling, in-service training of teachers, and specialized supervisory techniques for the music curriculum. PREREQ: Teaching experience.

517 Psychology of Music (3) In-depth study of learning theories as related to music education and the nature of music.

520 Classroom Materials for Music Programs (3) Evaluation of the newest materials for music education.

522 Music in the Middle School (3) Review and critical analysis of music education in the middle-school: philosophies; curriculum; practices; personnel.

523 Elementary Orff Techniques (3) Basic Orff melodic and rhythmic techniques for the elementary classroom. Emphasis on developing concepts for individual teaching situations.

524 Intermediate Orff Techniques (3) Continuation of MUE 523. PREREQ: MUE 523 or Level I Orff Certificate.

525 Elementary Kodaly Techniques (3) Basic Kodaly techniques. Adaptation of teaching procedures for elementary school: rhythm, melody, movement, improvisation.

526 Intermediate Kodaly Techniques (3) Continuation of MUE 525. PREREQ: MUE 525.

527 Projects to Individualize Music Classes (3) Evaluating learners and prescribing meaningful modes of instruction for individuals and small groups.

528 Music in Special Education (3) Characteristics of special pupils; adaptation of teaching techniques; materials; curriculum.

530 Classroom Guitar Pedagogy (3) Analysis and experience in pedagogical approaches for the music classroom teacher where guitar is part of the music curriculum. Exploration of alternative approaches used in teaching large or small groups. Performance at indicated levels commensurate with ability in solo and/or ensemble.

532 Related Arts in Music Education (3) Historical background of the related-arts movement. Principles of related-arts teaching related to musical elements, forms and styles, with appropriate teaching techniques at specified grade levels. Materials for school music programs; basal music series, other texts and literature, resources in related arts. Demonstration lessons and unit planning.

536-539 Workshops (1-3) Participation-oriented workshops designed to meet specific needs in music and music education and to develop skills for practical application in school and professional settings. (Prefixes: MWB Marching Band Techniques; MWE Music Education; MWH Handbells; MWK Kodaly; MWO Orff.)

592 Marching Band Techniques and Materials (3) Organization, music materials, care of instruments and uniforms, marching essentials, and contemporary techniques.

680 Special Subjects Seminar (1-3) Significant topics presented by faculty members or visiting lecturers. Designed to meet specific needs of the seminar group.

681-83 Independent Study in Music (1)(2)(3) Individual research under the guidance of a faculty member. PREREQ: Permission of instructor.

691-92 Research Seminar in Music (2)(1) A research proposal with supporting procedures is developed. Guidance in individual research topics, with tutorial assistance in form and style of research writing.

698 Research Report (1)

699 Thesis in Music Education (3)

VOCAL-CHORAL

Symbol: CHO

511 Masterworks Chorus (1) Participation in the preparation of programs for concert performance.

611 Chamber Choir (1) Participation in the preparation of programs for concert performance. By audition.

612 Concert Choir (1) Participation in the preparation of programs for concert performance. By audition.

Symbol: VOC

MAV 511 Master Class—Baroque (1) Discussion and performance of songs from the Baroque period.

MAV 512 Master Class—Lied (1) Discussion and performance of the German art song.

MAV 513 Master Class—Melodie (1) Discussion and performance of the late French art song.

MAV 514 Master Class—20th Century Song (1) Discussion and performance of art songs from the 20th century.

515 English-Italian Diction (3) English, Italian, and Latin diction in a laboratory course to establish correct punctuation in singing. The phonetics of these languages are used in selected song repertoire.

516 French-German Diction (3) French and German diction in a laboratory course to establish correct pronunciation in singing. The phonetics of these languages are used in selected song repertoire.

524 Musico-Dramatic Production (3) Techniques of producing musical plays. Preparation of roles, coaching, and conducting rehearsals. May lead to a public performance of the material studied.

526 Choral Literature (3) Representative examples of choral music from the various musical periods. Primarily the larger works for chorus are used.

529 Art Song (3) Classic song literature, *lieder*, *melodie*, and contemporary art songs are discussed.

536-39 Workshops (1-3) Participation-oriented workshops designed to meet specific needs in vocal-choral music.

546 Vocal Ensemble (2) Self-study in the performance and preparation of small ensembles. Project must have the approval of the department chairperson.

591 Vocal Pedagogy (3) Principles and techniques of teaching voice.

612 Advanced Choral Conducting (2) Study and application of choral conducting techniques. **PREREQ:** VOC 312 or permission of instructor.

679-80 Special Subjects Seminar (1-3) Significant topics presented by faculty or visiting lecturers.

681 Independent Study (1)

682 Independent Study (2)

683 Independent Study (3)

691 Research Seminar in Music (3)

692 Research Seminar in Music (1)

Symbol: VOI

501-02 Individual Lessons at the Minor Level (1) An elective course for graduate students.

511-14 Individual Lessons at the Major Level (1) A course for voice majors in the degree Master of Music in music education. Students may receive permission from the instructor to register for two course numbers in the same semester, earning the second credit through outside assignments and performing in a recital. **PREREQ:** Completion of the undergraduate voice requirements or by audition.

541-45 Individual Lessons at the Advanced Level (2) Advanced vocal studies culminating in a full master's recital. **PREREQ:** Completion of the performance requirements for the Bachelor of Music in voice program and/or admission by audition.

696 Recital (1) Half public recital for candidates in the Master of Music Education program in lieu of a research report. Candidate must write approved program notes. **PREREQ:** Approval by the examination committee.

697 Recital (2) A full public recital demonstrating an understanding of various performance styles and the ability to perform. Required of candidates for the Master of Music in Voice degree. **PREREQ:** Approval by the examination committee.

KEYBOARD MUSIC

Symbol: PLA, ORG

501-2 Individual Lessons at the Minor Level in Piano, Organ (1) Individual half-hour lessons once weekly. An elective course for all graduate students.

511-14 Individual Lessons at the Major Level in Piano, Organ (1) Individual half-hour lessons. Continued study in the development of repertoire and performing skills. Students may be given permission to register for two course numbers in the same semester, earning the second credit by doing additional outside work and performing in a recital. **PREREQ:** Completion of the

performance major requirements at the undergraduate level or admission by audition.

541-45 Individual Lessons at the Advanced Level in Piano, Organ (2-4) Individual half-hour lessons once weekly. Advanced studies leading to a full-length recital at the master's level. **PREREQ:** Completion of the performance major requirements for the Bachelor of Music degree and/or admission by audition.

525 Piano Technique (3) An exploration of the many approaches to acquiring and teaching piano technique; the correlation between technique and musical style; how to practice and to analyze physiological movements.

570-71 Individual Lessons at the Advanced Level for Accompanists (2) Individual half-hour lessons once a week to train pianists in playing accompaniments. **PREREQ:** Admission to the M.M. concentration in accompanying.

572-73 Accompanying I, Vocal; II, Instrumental (3) Survey of accompanying literature: (I) art songs, recitatives, cantata, opera, and oratorio arias; (II) strings, winds, and brass. Performance and reading in class.

KEN 574-75 Ensemble I, II (4) Accompanying in teaching studios for large groups (choruses), for various ensembles (trios, quartets), and for faculty, BM, MM, general, and senior student recitals.

576 Harpsichord and Continuo Realization (1) An introduction to harpsichord playing and the principles of continuo realization.

577 Transposition and Score Reading (2) Training in score reading and transposition at the keyboard.

578 Individual half-hour lessons for students of piano pedagogy (2) **PREREQ:** Admission to the pedagogy concentration.

579 Individual half-hour lessons for students of piano pedagogy (2) Includes presentation of a full or half recital of concert works or pedagogical pieces, or a lecture-recital.

580 Group Piano Pedagogy I (4) Procedures and materials for group piano instruction from pre-school through beginning levels. Emphasis upon developing musical literacy and creativity through peer learning and group interactions. Includes practicum in group piano instruction.

581 Group Piano Pedagogy II (4) Procedures and materials for group instruction from the intermediate through advanced levels. Emphasis upon developing comprehensive musicianship through an interwoven study of literature, musical analysis, technique, improvisation, ear training, harmony, transposition and sight reading. **PREREQ:** PLA 450.

582 Piano Pedagogy I (4) An in-depth study of repertoire and materials available to the studio piano teacher for the beginning and intermediate levels. Discussions of related concerns such as memorization, practice techniques, developing technique through literature, principles of fingering, and sight reading. Includes practicum in individual instruction.

583 Selected Topics in Piano Pedagogy (4) Further exploration of the goals and objectives of piano study through presentation of selected topics and continued practicum in individual instruction.

601 Baroque Keyboard Literature (3) The Renaissance through development of variation form and dance suite. Emphasis on performance practices, realizing ornament signs and figured basses; transferral to the modern piano; in-depth study of works of Handel, J. S. Bach, and D. Scarlatti. Some student performance required. PREREQ: PLA 425 (Keyboard Literature I) or equivalent.

602 Classical Piano Literature (3) Literature for the early piano (1750-1830). Origin and development of the sonata; performance practices of homophonic style. Music of the sons of Bach, Haydn, Mozart, Beethoven, and Schubert. Sound and structure of the early piano. Some student performance required. PREREQ: PLA 425 (Keyboard Literature I) or equivalent.

603 Romantic Piano Literature (3) Analysis of piano styles of Chopin, Mendelssohn, Schumann, Liszt, Brahms, Faure, Mussorgsky, Tchaikovsky, Rachmaninoff, Granados, Albeniz. Performance practices. The virtuoso etude and problems of technical execution. Some student performance required. PREREQ: PLA 426 (Keyboard Literature II) or equivalent.

604 Twentieth Century Piano Literature (3) Seminal works and styles of this century. Debussy, Ravel, Prokofiev, Hindemith, Schoenberg, Bartok, American composers. Some student performance required. PREREQ: MTC 213 (Theory of Music IV) or equivalent.

611 The Piano Concerto (3) A chronological presentation of the development of the piano concerto; performance problems and practices will be emphasized. J. S. Bach to present.

680 Special Subjects Seminar (1-3) Significant topics presented by faculty members or visiting lecturers. Designed to meet specific needs of the seminar group.

696 Recital (1) A shared (half) recital open to candidates for the Master of Music degree (music education concentration). In lieu of research report. Program notes required. PREREQ: Approval by committee examination.

697 Recital (2) A full public recital, demonstrating an understanding of various performance styles and ability to perform literature from several periods. Required of candidates for the Master of Music in applied music. PREREQ: Approval by committee examination.

INSTRUMENTAL MUSIC

Symbol: INS (unless otherwise indicated)

501-02 Individual Lessons at the Minor/Beginning Level (1) Prefixes: BAR, BAS, BSN, CLT, FLU, FRH, GTR, HRP, OBO, PER, SAX, TBA, TPT, TRB, VCL, VLA, VLN.

511-14 Individual Lessons at the Major Level (1) Instruments and prefixes as above.

541-45 Individual Lessons at the Advanced Level (2) Instruments and prefixes as above.

511 Instrumental Organizations (1) CBA Concert Band, COR Chamber Orchestra, MBA Marching Band, SBA Symphonic Band, SYO Symphony Orchestra, WIN Wind Ensemble.

511 Master Classes (1) Performance techniques and stylistic interpretation of instrumental solo works. PREREQ: Performance ability at the major level. MAB Brass, MAP Percussion, MAS Strings, MAW Woodwinds.

591 Instrumental Classes (2) Teaching techniques for the various instrumental families. BRC Brass Class, PEC Percussion Class, STC String Class, WWC Woodwind Class.

ICO 512 Advanced Instrumental Conducting (2) Study and application of techniques. Ability is developed to read and conduct full scores of major works for large groups. PREREQ: Undergraduate conducting.

MWB 536-539 Workshop: Marching Band Techniques (3) Participation-oriented workshops designed to meet specific needs in music and music education and to develop skills for practical application in school and professional settings.

511 Instrumental Ensemble (2) Experience in program selection, recruitment of players, rehearsal and performance of music for small ensembles.

552 String Literature (3) Evaluation of materials for solos and ensembles through performance and by use of scores and recordings.

553 Woodwind Literature (3) A comprehensive evaluation of materials for solos and ensembles through performance and by use of scores and recordings.

554 Brass Literature (3) A survey of solo, ensemble, and orchestral music for brass instruments, including consideration of teaching materials.

555 Instrumental Literature (3) Survey of solo, ensemble, band, and orchestral literature.

556 Marching Band Techniques and Materials (3) A survey of the function of the total marching band and of each component within the band.

557 Instrument Repairs (3) Stresses proper instrument care, preventive maintenance, adjustments, and minor repairs possible with basic equipment and minimal mechanical skill.

679-680 Special Subjects Seminar: Instrumental (1-2-3) Significant topics presented by faculty members or visiting lecturers. Designed to meet specific needs of the seminar group.

681-82-83 Independent Study in Music (1-2-3)

696 Instrumental Recital (1) A shared recital open to candidates for the Master of Music degree (music education concentration). In lieu of research report. Program notes required. PREREQ: Approval by committee examination.

697 Instrumental Recital (performance major) (2) Required of candidates for the Master of Music in applied music. PREREQ: Approval by committee examination.

MUSIC HISTORY AND LITERATURE Symbol: MHL

620 Folk and Non-Western Music (3) A study of the music of non-Western cultures and of Western folk music, along with an introduction to ethnomusicology and its research techniques.

621 African and Afro-American Music (3) Folk music, spirituals, work songs, field hollers, blues, ragtime, jazz, gospel songs, soul music, rock and roll. Includes some art music by black composers. PREREQ: An introductory music course.

622 History of Jazz (3) A survey of the history of jazz, including representative performers and their music.

640 Music of the Medieval Period (3) Development of plainsong and secular monody and beginnings and early history of polyphony to the 14th century. Consideration of contemporary trends in the visual arts, history, and literature.

641 Music of the Renaissance Period (3) Sacred and secular music in the Age of Dufay; changing forms and styles through the music of the Franco-Flemish Groups; the frottola and related forms; Palestrina and his contemporaries. Brief consideration of contemporary trends in the visual arts, history, and literature.

642 Music of the Baroque Period (3) Styles and forms of Europe repertoire; contributions of the major composers; role of music and musicians in the society of the period.

643 Late 18th-Century Music (3) Changing styles and forms in: the sons of J. S. Bach; the Viennese pre-classicists; the Mannheim School; opera; Joseph and Michael Haydn, Mozart, and their contemporaries; and the early works of Beethoven.

644 Nineteenth-Century Music (3) Historical developments during the Romantic Period (ca. 1800-1900). Analysis of changes and trends; comparative aspects of new forms.

645 Twentieth-Century Music (3) Chronological survey of 20th-century music. Development of styles. Technical aspects of changes occurring in melody, rhythm, orchestration, texture, tonality, and form.

650 Aesthetics and Music Criticism (3) The nature of music, including philosophies of its meaning. Study of music criticism, past and present. Exercises in reviewing concerts and recordings. An elective course for all students.

651 Music in the United States (3) Analysis of music and musical trends in America from the Pilgrims to the present.

652 Performance Practices I (3) Historical and analytical consideration of the special problems in stylistic realization and performance of music of the Middle Ages and Renaissance (ca. 900-1600). PREREQ: MHL 221 and 222, or permission of the instructor.

653 Performance Practices II (3) Historical and analytical consideration of the special problems in stylistic realization and performance of music of the Baroque, Classic, and early Romantic eras (ca. 1600-1850). PREREQ: MHL 221 and 222, or permission of the instructor.

654 History of Opera (3) The composers and their major contributions to the various schools of opera.

655 History of Orchestral Music (3) How the symphony orchestra developed from the Baroque Period to the present in its function, literature, instrumentation, and performance practices.

656 History of Musical Instruments (3) The development of musical instruments from antiquity to the twentieth century. A world view of instruments will include function and performance practice.

657 History of Chamber Music (3) The history, forms, and changing styles and media of chamber music from the 16th century to the present. Principal composers are studied.

660 Bach and His Works (3) The life of J. S. Bach; works for organ, keyboard, and other instruments; cantatas and larger choral works.

661 Beethoven and His Works (3) The life and times of Ludwig van Beethoven; consideration of orchestral, chamber, and vocal music, emphasizing chronological stylistic development; consideration of Beethoven's influence on the later 19th century.

662 Mozart and His Works (3)

670 Research in Music History (3) Bibliographical materials and research methods. Ability to read at least one foreign language required.

679 Seminar in Music History I (3) Significant topics presented by faculty members or visiting lecturers. Designed to meet specific needs of the seminar group.

680 Seminar in Music History II (3) Significant topics presented by faculty members or visiting lecturers. Designed to meet specific needs of the seminar group.

681-83 Independent Study in Music History (3) Individual research under the guidance of a faculty member. PREREQ: Permission of instructor.

699 Thesis in Music History (3)

MUSIC THEORY AND COMPOSITION

Symbol: MTC (unless otherwise indicated)

512-14 Advanced Composition (3) Free composition in larger forms for ensembles, solo voice and chorus, chamber groups, and orchestra. PREREQ: MTC 213 (Theory of Music IV) or equivalent.

515 Serialism and Atonality (3) Compositional procedures and theoretical concepts in atonal and serial work of Schoenberg, Berg, Webern, Bartok, Stravinsky, and more recent composers. PREREQ: MTC 213 (Theory of Music IV) or equivalent.

516 Jazz Practices (3) Jazz history, writing, and performance. Survey of basic jazz literature; fundamental techniques in arranging and improvising. PREREQ: MTC 212 (Theory of Music III) or equivalent.

517 Electronic Music (3) Materials and techniques of electronic music and their use in composition. Laboratory experience in the composition of electronic music. PREREQ: Permission of the instructor.

MWJ 536-39 Jazz Studies Workshop (2) (3) A workshop for the study and performance of jazz. Arranging and ensemble performance opportunities. See special brochure for details.

540 Advanced Band Arranging (3) Emphasis on arranging for school bands. Consideration given to bands with inexperienced performers and limited instrumentation. PREREQ: Teaching experience and a knowledge of orchestration.

541 Advanced Orchestration (3) Original composition of arrangement for orchestra. PREREQ: A knowledge of the instruments of the orchestra and experience in their use.

542 Advanced Musical Form (3) A detailed study of musical form, with emphasis on modifications of sonata form; vocal and instrumental forms of Baroque music, and forms which are unique.

544 Advanced Counterpoint I (3) Contrapuntal techniques of the 18th century. Chorale prelude and invention.

545 Advanced Counterpoint II (3) Continuation of MTC 544, including canon, invertible counterpoint, and fugue. PREREQ: MTC 544 or permission of the instructor.

550 Acoustics of Music (3) The study of sound; its production, transmission, and reception. Musical instruments, the acoustics of rooms, and the physical basis of scales.

552-53 Pedagogy of Music Theory I-II (3)(3) Techniques and materials for teaching music theory. MTC 552 is not a prerequisite to MTC 553.

554 Modal Counterpoint I (3) Use of modes, musica, ficta, and cadences, in 16th-century music. Experience in imitation in two parts, using all note values; double counterpoint; pronunciation and setting of Latin texts.

555 Modal Counterpoint II (3) Continuation of MTC 554. Writing in three and more voices. PREREQ: MTC 554.

563 Seminar in Music Theory (2) Intensive work in selected areas of music theory. Guidance in individual projects leading to significant current developments in theory. PREREQ: Permission of the chairperson of the Department of Theory and Composition.

564 Performance Practices in Contemporary Music (3) A course (1) in which the participants will study technical problems of understanding new notation (e.g. graphic scores, proportional scores, multiphonics, microtones, metric modulation, asymmetrical rhythm groupings, prose scores, etc.) and will develop a reasonable facility in performing scores which include these techniques, (2) which will provide an ensemble for which composition students may compose, and (3) which will establish an ensemble which may publicly perform new music.

679 Special Subjects Seminar (1-3) Significant topics presented by faculty members or visiting lecturers. Designed to meet specific needs of the seminar group.

681-83 Independent Study in Music (1)(2)(3) Individual research under the guidance of a faculty member. PREREQ: Permission of instructor.

691-92 Research Seminar in Music (2)(1) A research proposal with supporting procedures is developed. Guidance in individual research topics, with tutorial assistance in form and style of research writing.

697 Theory Thesis (3) For graduate majors in theory only.

698 Research Report (1)

699 Composition Thesis (3) For graduate majors in composition only.



Philosophy

Dr. Claghorn, *Chairperson and Coordinator of Graduate Studies*

PROFESSORS

George S. Claghorn, Ph.D., *University of Pennsylvania*

W. Stephen Croddy, Ph.D., *Brown University*

Walter J. Hipple, Ph.D., *University of Chicago*; Litt. D., *Shimer College*

Thomas W. Platt, Ph.D., *University of Pennsylvania*

Stanley Riukas, Ph.D., *New York University*

Paul A. Streveler, Ph.D., *University of Wisconsin*

Frederick R. Struckmeyer, Ph.D., *Boston University*

The Department of Philosophy has suspended until further notice the offering of its Master of Arts degree. During this suspension, no new students will be admitted to the department as degree candidates. The department, however, will continue to offer some graduate courses, which are open to all graduate students. The following undergraduate courses may also be taken for graduate credit, when properly approved: PHI 483, Philosophy of History, and PHI 488, Theory of Knowledge.

COURSE DESCRIPTIONS

PHILOSOPHY

Symbol: PHI

506 Meaning in Language (also LIN 506) (3) A discussion of topics having to do with meaning in everyday oral communication.

512 Ethical Theories (3) Examination of various ethical theories with practical applications to such problems as authority, punishment, rights, marriage, and race.

513 Aesthetic Theories (3) History of aesthetics, as seen in classic interpretations. Origins of art, psychological and sociological; the role of art works in the enrichment of life.

514 Philosophy of Religion (3) Dominant trends in religious philosophy of the Western world. Religious language, reason and faith, science, the nature of man, the existence of God, and mysticism.

515 Existentialism (3) Background and themes

of current existentialism, as reflected in Kierkegaard, Jaspers, Marcel, Heidegger, and Sartre. Evaluation of existentialism and its impact on contemporary literature, drama, art, and society.

520 Philosophy of Mind (3) The human mind, according to representative views. Presuppositions and implications, both scientific and philosophic, traced and analyzed. The mind-body problem; perception; memory; and the implications of depth psychology.

522 Philosophy of Science (also SCI 522) (3) The course begins with case studies in science and derives general principles from them. Scientific law, analogy, models, variant theories, confirmation, and interpretation.

523 Philosophy of Language (also LIN 523) (3) Problems of language and oral communication, with emphasis on problems of reference.

530 American Philosophy (3) American views

of man, society, and the universe, from colonial times to the twentieth century.

531 Oriental Philosophy (3) Central figures and classic teachings of Eastern philosophy and religion: Islam, Hinduism, Buddhism, Confucianism, Taoism, and Shintoism; naturalistic and humanistic elements of decisive influence on the culture of the Orient.

536 Symbolic Logic (3) Basic principles and methods of symbolic logic. Practice in determining validity of sentential and quantificational arguments. The algebra of classes.

590 Independent Studies in Philosophy (3)

599 Philosophic Concepts and Systems (3) Basic concepts of the philosophic enterprise: form, matter, the categories, cause, and purpose. Relation of premises to method and conclusions. Rival theories are compared for justification and adequacy.

610 Thesis (3-6)

640 Seminar (3) Study and evaluation of the major works of one philosopher, such as Plato, Aquinas, Kant, or Wittgenstein.



Physical Education



Dr. Lemcke, *Interim Chairperson*

Dr. Cochran, *Assistant Chairperson - Physical Education Sport and Safety*

Mr. Jones, *Assistant Chairperson - Recreation Leisure Studies and Dance*

Dr. Lank, *Assistant Chairperson - Sports Medicine and Exercise Science*

Mr. Trezise, *Assistant Chairperson - Required Physical Education Program*

Dr. Youmans, *Coordinator Graduate Studies: Health and Physical Education*

The Department of Physical Education offers degree programs leading to the Master of Education in health and physical education, a Master of Science in physical education and a concentration in sport and athletic administration within the Master of Science in Administration. The Master of Education enriches academic preparation for teaching in the public schools and/or first-level employment in the various professions related to health and physical education. The Master of Science is designed primarily to meet individual needs of the graduate student who wishes to pursue graduate work beyond the master's degree or a career in research. The M.S. may also serve to prepare personnel for staff positions in education, government, and industry.

The sport and athletic administration concentration in the Master of Science in administration program meets the needs of those persons interested in entering the field of sport and athletic administration and of those persons presently in sport and athletic administration interested in upgrading their careers.

Certification programs in driver education and safe living and coaching are also offered by the Department of Physical Education.

The Department of Physical Education also offers graduate assistantships.

THE PROFESSOR RUSSELL STURZEBECKER SCHOLARSHIP

The Graduate Division in the School of Health Sciences in the Department of Physical Education administers the Professor Russell Sturzebecker Scholarship. Through the kind generosity of Mr. John F. Unruh a \$100 award is made each semester to a "worthy and needy" graduate student in health and physical education. The award is donated by Mr. Unruh in honor of Professor Sturzebecker.

The recipient must be working full time in the field of health and physical education and must be a part-time student at West Chester University working towards a master's degree in his or her professional field.

Graduate students who meet the above criteria are invited to submit a letter of application for the scholarship along with a resume of their professional and academic status. These documents should be submitted to Chairperson, Department of Physical Education on or before December 15th for the first semester award and on or before March 15th for the second semester.

THE GRADUATE SCHOLARSHIP

The Graduate Division of the Department of Physical Education administers a graduate scholarship. The amount of money awarded may vary somewhat from year to year depending on the funds available, but it is anticipated that the award will be approximately \$300 each year.

Selection criteria include 1) scholarship, 2) citizenship and character, 3) leadership, 4) need, and 5) ability in and/or contribution to specific areas of health or physical education.

Application forms are available from the office of the Department of Physical Education, Room 320, South Campus.

COMMUNICATION WITH THE DEPARTMENT

All inquiries and other communications regarding the graduate program in physical education should be addressed to the Coordinator of Graduate Studies, Department of Physical Education, School of Health Sciences, West Chester University, West Chester, PA 19383, Phone 215-436-3434.

COMPREHENSIVE EXAMINATION

The Comprehensive Examination for graduate students in physical education is administered twice a year—in March and October. Each examination consists of an elective course portion to be given for two hours on a Tuesday and the required course portion to be given for a two hour period on the following Thursday.

Students desiring to take the examination should have been admitted to degree candidacy and completed all required course work or be currently enrolled and have completed the majority of their elective requirements. A letter of intent to take the comprehensive examination should be filed with the Coordinator of Graduate Studies, Department of Physical Education, School of Health Sciences, West Chester University, West Chester, PA 19383. Letters of intent should be filed by February 15th or September 15th for the March or October examination respectively.

Upon receipt of the letter of intent and with the approval of the coordinator, students will be sent a letter setting forth the details of time and place of the examination and a set of sample questions.

Fall Semester—1983
Tuesday, October 18th
Thursday, October 20th

Spring Semester—1984
Tuesday, March 20th
Thursday, March 22nd

MASTER OF SCIENCE PROGRAM

Admission to the M.S. Program

Applicants must meet the basic requirements of the university, given under Admission and must present a baccalaureate degree earned in their anticipated major area of health or health and physical education or equivalent preparation in a related field.

Admission to the M.S. Degree Candidacy

Within the 15 semester hours of pre-candidacy majors in physical education must complete any three of the departmental core courses with a minimum quality point average for these and all other courses during pre-candidacy of 3.00.

Requirements for M.S. Degree

1. Satisfactory completion of the M.S. curriculum shown below with an average of 3.00.
2. Satisfactory performance on written and/or oral comprehensive examination.
3. Successful completion of thesis or research report.
4. Oral defense of the thesis (Thesis track only).

CURRICULUM

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|--|---------|
| 1. Degree Core | 21 s.h. |
| PED 572 Advanced Motor Learning (3) | |
| PED 580 Psychological and Sociological Foundations of Physical Education and Sport (3) | |
| PED 585 Biomechanics (3) | |
| HPE 600 Research Methods in Health, Physical Education and Recreation (3) | |
| PED 601 Statistical Design for Research and Evaluation in Physical Education (3) | |
| PED 602 Philosophical Foundations of Physical Education (3) | |
| PED 681 Advanced Exercise Physiology (3) | |
| 2. Additional Degree Requirements - Thesis Track | 12 s.h. |
| PED 608 Thesis Seminar (3) | |
| PED 610 Thesis (3) | |
| Electives selected under advisement (6) | |
| Additional Degree Requirements - Research Report Track | 13 s.h. |
| PED 607 Research Report Seminar I (2) | |
| PED 608 Research Report Seminar II (2) | |
| Electives selected under advisement (9) | |

The thesis proposal must be formally approved within the thesis seminar (PED 608) before the student may register for Thesis (PED 610). *IMPORTANT: To be considered on active status, the student must register for PED 608 until the thesis proposal is formally approved and then for PED 610 until the thesis is formally completed. Failure to do so will result in the student's having to begin the thesis process over again starting with PED 608. The same rules apply to research report students and courses PED 606 and 607.*

MASTER OF EDUCATION IN HEALTH AND PHYSICAL EDUCATION

Admission to the M.Ed. Program

In addition to meeting the basic requirements of the university given under Admission, applicants must present a baccalaureate degree earned in the field of health and physical education or equivalent preparation in a related field.

Admission to the M.Ed. Candidacy

Within the 15 semester hours of precandidacy the student must complete three of the core courses with an average of 3.0.

Requirements for the M.Ed. Degree

1. Completion of the M.Ed. curriculum shown below with an overall average of 2.75; 3.00 in the respective major field.
2. Satisfactory performance on the written and/or oral comprehensive examination.
3. Successful completion of the research project.

CURRICULUM

- | | |
|--|---------|
| 1. Degree Core | 12 s.h. |
| HPE 600 Research Methods in Health, Physical Education and Recreation (3) | |
| PED 601 Statistical Design for Research and Evaluation in Physical Education (3) | |
| PED 602 Philosophical Foundations of Physical Education (3) | |

- PED 681 Advanced Exercise Physiology (3)
2. Electives
 - Selected under advisement from within department 7-10 s.h.
 - Selected under advisement may be from related field 3-6 s.h.
 3. Additional Degree Requirements 10 s.h.
 - EDF 510 Educational Foundations (3)
 - HEA 620 School Health Problems (3)
 - PED 606 Research Project Seminar I (2)
 - PED 607 Research Project Seminar II (2)

The research project consists of a two semester sequence PED 606 and 607 which must be preceded by successful completion of HPE 600 Research Methods in Health, Physical Education and Recreation. *IMPORTANT: To be considered on active status the student must continuously register for PED 606 including summer sessions until this requirement is met; continuous registration is similarly required for PED 607.*

CONCENTRATION IN SPORT AND ATHLETIC ADMINISTRATION—MASTER OF ADMINISTRATION

Admission to the M.S. Program.

Applicants must meet the basic requirements of the university, given under Admission and must present a baccalaureate degree in their anticipated major area of health and physical education or equivalent preparation in a related field. They must also present the results of the aptitude section of the Graduate Record Examination or the Miller Analogies Test.

Admission to the M.S. Degree Candidacy

Within the 15 semester hours of pre-candidacy, majors in the sport and athletic concentration must complete three of the administrative core courses and two of the sport and athletic administration core courses with a minimum quality point average for these courses during pre-candidacy of 2.75.

Requirements for the M.S. Degree

1. Satisfactory completion of the M.S. in administration curriculum shown below with an overall average of 2.75.
2. Satisfactory performance on the written and/or oral comprehensive examination.
3. Successful completion of research project.

CURRICULUM

1. Administrative Core 18 s.h.
 - ADM 501 Administrative Theory and Environment (3)
 - ADM 502 Computers for Managers
 - ADM 503 Accounting for Administration (3)
 - ADM 504 Communication for Administrators (3)
 - ADM 505 Organizing Human Resources (3)
 - ADM 506 Budgeting and Fiscal Management (3)
2. Sport and Athletic Administrative Core 15 s.h.
 - PED 580 Psychological and Sociological Foundations of Physical Education and Sport (3)
 - HPE 600 Research Methods in Health, Physical Education and Recreation (3)
 - PED 601 Statistical Design for Research and Evaluation in Physical Education (3)
 - PED 602 Philosophical Foundations of Physical Education (3)
 - PED 604 Administration and Supervisory Practices in Health, Physical Education, Recreation, and Athletics (3)

3. Additional Requirements

4 s.h.

PED 606 Research Project Seminar I (2)

PED 607 Research Project Seminar II (2)

The research project consists of a two semester sequence PED 606 and 607 which must be preceded by successful completion of HPE 606 Research Methods in Health, Physical Education and Recreation. *IMPORTANT: To be considered on active status the student must continuously register for PED 606 including summer sessions until this requirement is met; continuous registration is similarly required for PED 607.*

CERTIFICATION PROGRAM IN DRIVER EDUCATION AND SAFE LIVING

(Highway Safety and General Safety Education)

Richard B. Yoder, *Coordinator*

A teacher's certificate may be extended to include education for safe living (highway safety and general safety education) by completing 12 semester hours of course work in the Department of Physical Education. Six of these hours must be met by History and Philosophy of Safety Education and Principles of Accident Prevention (PED 660) and Seminar in the Four-Phase Program of Driver Education (PED 561). The remaining two courses are chosen, under advisement by the coordinator, from PED 661, 662, and 560.

COURSE DESCRIPTIONS

HEALTH AND PHYSICAL EDUCATION

Symbol: HPE

500 Contemporary Problems in Health, Physical Education, and Recreation (3) Problems in teaching health, physical education, and recreation; in-service aspects; factors and variables which influence solutions of these problems.

600 Research Methods in Health, Physical Education and Recreation (3) Techniques of research applied to the field of health, physical education and recreation.

601 Techniques of Measurements and Evaluation in Health and Physical Education (3) Statistical and evaluative procedures and their application to health, physical education, and recreation.

602 Historical and Philosophical Bases for Health and Physical Education (3) Past and contemporary philosophies, principles, and objectives in health, physical education, and recreation; current trends.

604 Administration and Supervisory Practices in Health, Physical Education, Recreation, and Athletics (3) Nature of the positions of directors or supervisors of physical education, recreation, and athletics. Job specifications; operational principles and procedures.

605 Curriculum in Health and Physical Education (3) Trends in health and physical education curricula at the elementary, secondary, and college levels. Surveys, reports, and analyses of curriculum practices.

606 Research Project Seminar I (2) The M.Ed. candidate selects a problem for a research report,

reviews the literature, develops procedures, and collects appropriate data. Students are expected to complete the first three chapters of the research report during Seminar I, and will continue to register for this course each semester and summer session until this requirement is met. They then register in Seminar II.

609 Independent Study and Special Projects (1-3) Research projects, seminar papers, reports of special conferences, and reading in health and physical education. PREREQ: Approval of chairperson prior to the semester registered.

PHYSICAL EDUCATION

Symbol: PED

550 Elementary Physical Education Workshop (3) Orientation for the teaching of elementary physical education. Principles and practices; appropriate activities for various grade levels.

551 Elementary Physical Education Recreation Music Workshop (2) Leading and teaching rhythmic activities and singing in elementary physical education and recreation. Fundamental level. Instruction programmed music textbook; piano and guitar chords. Creating and teaching recreational and singing games.

552 Learning on The Move (3) Movement education and perceptual motor theory. Activities to guide children to maximal development potential.

560 Seminar in Motorcycle Safety Education (3) Curricular design, administration, and operational techniques of motorcycle safety programs. Laboratory experiences.

561 Seminar in the Four-Phase Program of

Driver Education (3) In-service experience for driver-education teachers in classroom. BTW, multi-car method, and simulation.

570 Leadership in Outdoor Adventure Education (3) This program is designed to provide instruction which would help persons interested in understanding and adapting "Outward Bound" philosophy, educational methodology, process, and activities for use in outdoor education and physical education programs.

572 Advanced Motor Learning (3) An investigation into the theories, research, and practical applications of the processes and conditions involved in the teaching and learning of physical skills.

577 Summer Dance Workshop/Effective Projection in Theater Dance (1) Experience in dance as a performing art: lighting, set design, costume. Original compositions are staged. The workshop combines various dance techniques.

580 Psychological and Sociological Foundations of Physical Education and Sport (3) Study of the cultural evolution of sport and physical education; the inter-relationship between sport and culture; the social dynamics, institutionalization and sociological elements of activity; a basis of sport psychology.

581 Adapted Physical Education (3) Techniques for a program of adapted physical education in the public school. Application of activities to benefit the child with a temporary or permanent disability.

582 Modern Principles of Athletic Training (3) A course for the physical educator and/or coach. Injuries which occur in class, practice, and game situations; preventive taping and wrapping; immediate first-aid procedures; relations with the medical profession.

585 Biomechanics (3) A review of and/or introduction to the basic principles of biomechanics and the application of those principles to research and teaching.

586 The Olympic Games—Their Influences on the Ancient and Contemporary Worlds (3) Ancient and modern games and their historical and cultural significance. Sociological and political implications of the modern games.

601 Statistical Design for Research and Evaluation in Physical Education (3) The practical and theoretical application of the basic concepts of elementary statistics as it relates to the evaluative procedures, research, and teaching in physical education.

602 Philosophical Foundations of Physical Education and Sport (3) Analysis and synthesis of the nature, meaning, and value of health and physical education from an historical perspective.

Development of a personal philosophy of the field.

603 Professional Literature Seminar (3) Review and critical analysis of the professional literature and current research findings in the field of physical education.

607 Research Project Seminar II (2) M.Ed. candidates must complete their research reports in this seminar (see HPE 606). They continue to register for the seminar until the report is completed.

608 Thesis Seminar (3) A course for the M.S. candidate, who selects a topic, reviews the literature, develops procedures, and prepares a proposal acceptable to the thesis committee. Candidates continue to register for the seminar until they have met requirements. They then register for HPE 610.

610 Thesis (3) Undertaken upon completion of HPE 608. If the thesis is not completed in the first semester the student and must register again and thereafter in 610 until the thesis has been accepted by the committee.

650 The Child and Physical Education (3) Contributions of physical education to the child's physical, social, emotional, and intellectual growth and to his developmental needs and interests. The influences of various activities on growth and development.

660 History and Philosophy of Safety Education and Principles of Accident Prevention (3) The safety movement in the United States and other countries. Place of safety education in modern living, philosophies of safety-education leaders; accident causation and prevention; their research implications. Background for administering school, civil defense, and emergency safety programs.

661 Contemporary Practices and Program Evaluation in Safety Education (3) Current practices, evaluation of programs, and research of current literature in safety education. Techniques for selecting, constructing, and utilizing instruments for evaluating safety-education programs. Problem-solving projects.

662 Problems in Traffic and Driver Education (3) Contemporary curriculum and current practices in driver and traffic education, enforcement of traffic laws and regulations, engineering problems. Problem-solving projects.

663 Psychology in Safety Education and Accident Prevention (3) Effects of unconscious determinism, habits, attitudes, individual adjustment, motivation, and personality on accident causation. Research implications explored.

680 Scientific Principles of Coaching (3) Recent trends in theories and techniques of teaching

sports. Mechanical principles of efficient movement. Research related to competitive performance. Specialists serve as guest panelists.

681 Advanced Exercise Physiology (3) Clinical and laboratory use of exercise in evaluating, maintaining, and modifying human physiological processes: Growth development, metabolism and weight control, and cardio-vascular—respiratory functions in health and disease; neuromuscular integration and performance. Stress physiology and training and conditioning.

682 Biodynamics of Human Performance (3) Physiology of the active, vital organism. Scientific findings concerning human performance, especially under stress and accompanying physiological adjustments.

683 Comparative Physical Education (3) Comparative study of programs outside the United

States. Current philosophies, principles, and practices.

684 Sport and Society (3) Using a historical context, a model of the role of sport in a variety of societal environments will be constructed. Emphasis will be placed on the view of sport as a form of human expression that is reflective of the current value structure or a particular society.

685 Women's Exercise and Sports (3) The physiological, psychological, and sociological effects of exercise and sport on the female participant.

SERVICE COURSES

The following courses are open to students in all curricula, with no prerequisite in health and/or physical education required:

HPE 605; HEA 620; PED 550; 551, 552, 560, 561, 570, 577, 580, 581, 585; 650, 660, 661, 662, 663, 680, 682.



Physical Science Program

(Interdepartmental)

Program Coordinators: Dr. Greenberg (Geology and Astronomy), Dr. Smith (Physics)

A degree program designed primarily for those who teach the physical sciences in high school, junior high school, or the middle school is given on an interdepartmental basis through the Departments of Chemistry, Geology and Astronomy, and Physics.

Leading to the Master of Arts degree, the program makes it possible for students to plan a sequence of studies meeting their individual needs. This may be accomplished either through selections from each of the disciplines or by concentrating in one of them.

Entrance Requirements

Students entering the program are normally expected to have a bachelor's degree in science or science education and, if teaching in the public schools, a valid teaching certificate.

MASTER OF ARTS IN PHYSICAL SCIENCE

34 Semester Hours

Science education requirements for the program must be met with SCE 500—Modern Trends in Science Education and PHS 502—Modern Trends in Teaching Physical Science. A science elective area of at least 29 semester hours is developed, under advisement, from selections in chemistry, geology and astronomy, and physics. The elective area may be concentrated in chemistry, geology and astronomy, or physics.

At the end of the program the student must pass a comprehensive examination dealing with topics he or she would ordinarily teach.

For course offerings see Chemistry, Geology and Astronomy, and Physics.

Physics

Dr. Skelton, *Chairperson*

Dr. Smith, *Coordinator of Graduate Studies*

PROFESSORS

Russell K. Rickert, Ed.D., *New York University*

Frank A. Smith, Jr., Ed.D., *Temple University*

Stanley J. Yarosewick, Ph.D., *Clarkson College of Technology*

ASSOCIATE PROFESSORS

Robert W. Hawkes, M.S., *Pennsylvania State University*

Brent Kaplan, M.M.E., *New York University*

Harold L. Skelton, Ph.D., *University of Delaware*

The Department of Physics is one of three departments within the Faculty of Arts and Sciences offering a degree program leading to the Master of Arts in physical science. See Physical Science Program.

COURSE DESCRIPTIONS

PHYSICAL SCIENCE

Symbol: PHS

500 Fundamentals of Radioisotope Techniques (3) Biological, chemical, environmental, and physical effects of nuclear radiation. Radiation detection, instrumentation, and radio-tracer methodology. PREREQ: 1 year of college chemistry and 1 year of college physics.

502 Modern Trends in Teaching Physical Science (2) Materials and techniques in teaching physical science; demonstrations and experiments.

504 Foundations of Physics (3) Introduction to classical physics; vectors, mechanics, waves.

505 Modern Concepts in Physics (3) Introduction to electricity and magnetism, light, the nature of radiation, quantum and atomic physics, radioactivity. PREREQ: 504 or equivalent.

507 Modern Trends in Physical Science (3) Recent developments in physical science and their relation to secondary school science. Topics depend on backgrounds and needs of students.

510 Electronics (3) Laboratory oriented course. Review of A.C. and D.C. circuits, transistor circuits, introduction to integrated circuits, and digital electronics. PREREQ: General physics.

511 Electricity (3) Analysis of the principles of electricity and electromagnetism. PREREQ: Differential and integral calculus, general physics.

512 Mechanics (3) Mathematical analysis of dynamics and statics. PREREQ: Differential and integral calculus, general physics.

513 Modern Physics (3) Twentieth-century contributions and ideas, including special relativity, quantum theory, atomic structure, solid state structure. PREREQ: General physics.

522 Optics (3) A course in geometrical and physical optics. Topics include reflection and refraction, thin lenses, the optics of vision, interference, diffraction, polarization, and the laser.

580 Energy Conversion and Utilization (3) The energy crisis, fossil fuels, nuclear, solar, wind, and geothermal energy, societal implications, and applications.

590 History of the Physical Sciences (3) From Aristotelian concepts to modern scientific concepts.

592 Independent Studies (1-3)

SCI 522 Philosophy of Science (see PHI 522)

PHYSICS

Symbol: PHY

515 Mathematical Physics I (3) Topics of mathematics applied to problems in physics. Topics include ordinary differential equations, complex variables and hyperbolic functions, vector calculus, and numerical analysis.

532 Nuclear Physics (3) Basic nuclear properties, nuclear structure, alpha and beta decay, gamma radiation, nuclear reactions, particle accelerators, detection equipment, and elementary particles.

533 Nuclear Physics Laboratory (1) Ordinarily accompanies PHY 532. Preparation and han-

dling of radioactive samples and examination of nuclear decay characteristics and reactions. With instructor's approval, PHY 533 may be elected without concurrent enrollment in PHY 532.

The Department of Physics has approved any 400 level physics course for graduate credit when scheduled with the approval of the student's advisor.



Psychology



Dr. Sands, *Chairperson*

Dr. Moore, *Coordinator of Graduate Studies*

PROFESSORS

Jay L. Clark, Ph.D., *University of Minnesota*

Bernard B. Cohen, Ph.D., *New York University*

Robert S. Means, Ph.D., *University of Alabama*

Walena C. Morse, Ph.D., *Bryn Mawr College*

Jack Porter, Ed.D., *Temple University*

Harold R. Sands, Ph.D., *Pennsylvania State University*

Edward D. Smith, Ed.D., *Pennsylvania State University*

ASSOCIATE PROFESSORS

Mary E. Crawford, Ph.D., *University of Delaware*

V. Krishna Kumar, Ph.D., *University of Wisconsin*

Samuel F. Moore, Ph.D., *University of Cincinnati*

Edward I. Pollak, Ph.D., *University of Connecticut*

Louis H. Porter, Ph.D., *Howard University*

Thomas Treadwell, Ed.D., *Temple University*

Elizabeth H. Eldredge, M.A., *Temple University*

Leigh Shaffer, Ph.D., *Pennsylvania State University*

Robert R. Shinehouse, M.A., *Temple University*

Three degree programs are offered by the Department of Psychology. One leads to the Master of Arts in psychology; the second to the Master of Arts in social science with a concentration in psychology; the third to the Master of Science in administration with a concentration in psychology.

Admission Standards

The minimum admission standards for the Department of Psychology are undergraduate GPA—3.00; Psychology GPA for 3 or more courses—3.25; GRE or MAT scores in the 40th percentile or above; and three letters of reference. An interview with the Department Admissions Committee may also be required. Typically, admissions are made on a once-a-year basis with April 15 serving as the application deadline.

Admission to the clinical and industrial/organizational concentrations is relatively competitive, and only a limited number of the top applicants are accepted in these programs each year. Students accepted into the general concentration may, with the approval of the Graduate Committee, transfer to the clinical concentration if they have achieved a 3.4 or better GPA in the five core courses (PSY 503-504, 505, 506 and 512) and no less than a 3.0 in any

other courses taken while completing the core. Although not yet exactly defined, the transfer requirements for the Industrial/Organizational concentration will parallel in principle those outlined for transfer to the clinical concentration, but the core involved is as follows: PSY 503-504, 509, 524 and 445. Some few applicants who do not fully meet the outlined admission requirements may be admitted on a provisional basis depending on their maturity, relevant work experiences, and academic promise.

Degree Programs

Several degree options are offered. The Master of Arts degree is offered with a concentration in clinical psychology for students who wish to work in a mental health setting or to continue their education at the doctoral level. A concentration in general psychology is offered for students interested in research, teaching, or in continuing their graduate studies. The concentration in industrial/organizational psychology is designed for students interested in employment in business or industry or for those who wish to continue their education at the doctoral level in a related area. Finally, two interdisciplinary programs are offered which are designed to meet the needs of students with more diversified interests.

MASTER OF SCIENCE IN ADMINISTRATION: Concentration in Psychology

The Department of Psychology participates in an interdisciplinary degree program leading to a Master of Science in administration with a concentration in psychology. See Administration.

MASTER OF ARTS IN PSYCHOLOGY

Concentration: Clinical Psychology

40-42 Semester Hours

Students who wish training as clinical psychologists and who are admitted into this concentration take 36 semester hours of required courses. These are PSY 503-504-505-506-512-517-524-527-544-549-559, and 595 or 596. They are also required to take the Clinical Practicum for 4 to 6 semester hours.

The West Chester master's degree program in clinical psychology has been approved by the Pennsylvania State Board of Psychologist Examiners as meeting the educational requirements for licensure in Pennsylvania. To qualify for licensure, students are required to complete 40 semester hours in the clinical psychology concentration.

Concentration: General Psychology

33-36 Semester Hours

Students who wish training in general psychology are required to take 15 semester hours of required courses. These are 503-504-505-506 and 512. Either a thesis (PSY 610) for 3 semester hours or a research report (PSY 600) for 3 semester hours is required. All students in this concentration must complete 15 semester hours of electives. Subject to approval, six semester hours of electives may be taken from any university graduate offering.

Concentration: Industrial/Organizational Psychology

The industrial/organizational concentration includes 27 semester hours of required coursework (PSY 503-504, 509, 524, 445, 560, 562, 564 and 566). A 3 credit internship and a 3-6 credit research experience (PSY 600 or PSY 610) are also required. In addition, students must take two elective courses which in combination with their internship and research experience will enable them to explore a particular aspect of the field in greater depth. The elective courses may be taken outside of the Psychology Department. With careful selection of electives, internship, and research focus, students will be able to develop specialization in human

man factors, personnel evaluation and placement, or group and organizational processes aspects of industrial/organizational psychology.

MASTER OF ARTS IN SOCIAL SCIENCE

Concentration: Psychology

30-36 Semester Hours

The Master of Arts in social science, an interdisciplinary degree within the Faculty of Arts and Sciences, is particularly designed for teachers desiring strengthened subject-matter knowledge in more than one academic discipline. The program also prepares students for careers in government and industry and is appropriate for those desiring cultural enrichment. The concentration in psychology is especially recommended for students whose interests are directed toward human concerns and services. Candidates in this concentration are advised by the Department of Psychology.

Requirements

In the research area PSY 503-504 are required. The student must take from 9 to 12 additional semester hours of psychology courses, selected under advisement. Within the concentration a research report (PSY 600), a thesis (PSY 610), or a practicum in an applied setting (PSY 615 or PSY 620) may be recommended.

Beyond the psychology concentration, the student must complete 12 semester hours of social science electives chosen from at least two departments other than psychology. Finally there is a cognate elective area of 0-3 semester hours, to be chosen from any school in the university.

COURSE DESCRIPTIONS*

PSYCHOLOGY

Symbol: PSY

501 Introductory Statistics for the Behavioral Sciences (3) Central tendency, variability, standard scores, correlation, probability, sampling, tests of hypotheses, "t" test, chi square, distribution-free statistics, introduction to analysis of variance.

502 Advanced Statistics for the Behavioral Sciences (3) Special correlational methods, analysis of variance, and analysis of covariance. PREREQ: PSY 501.

NOTE: PSY 501-502 provide a foundation and review for PSY 503-504 but may not be substituted for those courses. PSY 501 is particularly recommended for those who are weak in, or have not previously been exposed to, behavioral sciences statistics.

503-504 Research Methodology and Statistics I-II (3) (3) This two semester sequence course covers descriptive and inferential statistical techniques with emphasis on application to research in psychology and related areas. 503 must precede 504. PREREQ: PSY 501 or equivalent.

505 Advanced General Psychology (3) Intensive consideration of learning, memory, cognitive processes, motivation, emotion, human development, personality, and physiological psychology.

506 Theories of Learning (3) Survey and critical review of existing theories of learning and the relevant research data.

509 Advanced Social Psychology (3) Emphasizes contemporary approaches to the study of social behavior including cognitive, social, and experimental and quasi-experimental research methodology.

512 Psychology of Personality (3) The interaction and effects of forces which influence personality development. Normal and neurotic development contrasted; principles of personality measurement explored.

517 Psychopathology (3) Advanced study of abnormal human behavior and a description of pertinent types, including symptoms, causes, and treatment. Current and recent theoretical approaches and research findings relevant to the etiology and treatment of these disorders. PREREQ: PSY 375 and 512, or equivalents, or permission of instructor.

524 Psychometrics (3) A survey of measurement theory in psychology with emphasis on the logic of measurement, scaling models, statistical methods, construction of valid and reliable

*All courses in the Psychology Department are restricted to those students who have been admitted to a degree program by the Psychology Department, or to those who have received special permission to register for a course from the Psychology Department Graduate Coordinator.

measures. PREREQ: PSY 503, and 512 recommended.

527 Behavior Modification (3) Application of learning principles and environmental control to behavior change. Foundation principles, techniques and assessment methods of modification. PREREQ: PSY 506 or equivalent.

544 Individual Psychometric Techniques: Wechsler & Binet Scales (3) Historical development, administration, scoring, and interpretation of the Wechsler and Binet scales. PREREQ: PSY 501 and PSY 524 or equivalent. Restricted to psychology majors. By permission only (Usually restricted to clinical psychology majors).

549 Introduction to Projective Techniques and Personality Testing (3) History and theory of personality testing. Introduction to administration, scoring and interpretation of projective techniques. PREREQ: PSY 517 or equivalent, and PSY 524. Restricted to clinical psychology majors or permission of instructor.

550 Seminar in Psychology (1-3) Selected problems in psychology. Subject announced in advance of each semester. Offered on demand.

555 Psycholinguistics (Also LIN 555) (3) See LIN 555. Offered on demand.

559 Psychotherapy (3) Theoretical considerations, principles, techniques, and problems involved in counseling and psychotherapy. Usually restricted to clinical psychology majors. PREREQ: PSY 512, 517 or equivalents.

560 Advanced Industrial and Organizational Psychology (3) Application of individual differences, learning and aptitudes to functions such as personnel selection, placement training, and performance appraisal. Also, emphasis directed to psychological aspects of organizational functioning such as worker motivation, job satisfaction, organizational development, and strategies for organizational change.

562 Psychology of Occupational Behavior (3) Selected theoretical and empirical findings relevant to career development over the life span, implications of national manpower policy, and vocational counseling procedures within the context of business and industrial settings.

564 Human Factors and Performance Analysis (3) Methods and results of experimental psychology pertinent to man-machine relationship problems. Workplace design, systems approach, control and display and man-in-space challenges are emphasized.

566 Seminar in Industrial/Organizational Psychology (3) Recent technical, legal, social and ethical aspects of the field are covered. Affirmative action and assessment, equal opportunity,

minorities and women in the work force, and other pertinent issues are emphasized.

590 Independent Studies in Psychology (1-3) Research projects, reports, readings in psychology. PREREQ: Approval of department chairperson.

595 Clinical Psychology (Child and Adolescent) (3) Survey of clinical techniques used in assessment and treatment of childhood and adolescent personality disorders. Restricted to psychology majors. PREREQ: PSY 512, PSY 517.

596 Clinical Psychology (Adult) (3) Theoretical foundations of clinical evaluation, screening, and treatment methods. Emphasis on clinical psychology as a profession. PREREQ: PSY 512, PSY 517.

600 Research Report (3) An original review of the literature.*

610 Thesis (3-6) An original empirical study. PREREQ: PSY 504 and permission of instructor.*

615 Clinical Practicum in Psychology (3-6) Supervised professional participation in applied psychological activities or projects in cooperating agencies and institutions.* PREREQ: PSY 503, 504, 505, 506, 512, 517, 524, 544, 559, 595 or 596. Restricted to psychology majors and recommendation of graduate clinical faculty.

620 Practicum in School Psychology (3-15) Supervised experience as a school psychologist. Offered for students seeking out-of-state certification as a school psychologist (West Chester University does not presently offer a program leading to certification as a school psychologist in the Commonwealth of Pennsylvania). Restricted to psychology majors.

630 Internship in Industrial/Organizational Psychology (3) Supervised professional participation in applied psychological activities within a business and/or organizational setting. PREREQ: Permission of instructor.

The following four 400 level courses are frequently taken for graduate credit, with one of these—PSY 445—serving as a core requirement in the industrial/organizational concentration:

430 Human Sexual Behavior (3) The study of those variables under which human sexual behavior functions. Research from sociological and medical studies is integrated with psychological knowledge.

*While work on these courses may be completed any semester, students are encouraged to enroll for them during the summer sessions. Courses may be cancelled or semester changed as required by enrollment. Summer courses depend upon adequate enrollment.

443 Psychology of Group Processes (3) Survey of psychological group processes, tracing the origins and historical development of the major contributing theoretical orientations.

445 Organizational Development (3) The study of human behavior in task group and organizational contexts.

465 Psychology of Women (3) A study of behaviors and experiences of women: biological, cultural, interpersonal and intrapersonal determinants of women's actions, thoughts, and feelings are explored.

These additional 400 level courses may be taken for elective graduate credit with the permission of the course instructor and the student's

program advisor and/or the Psychology Department Graduate Coordinator: PSY 435 (Animal Behavior), 450 (Motivation), 461 (Applied Psychology), 462 (History and Systems of Psychology), 464 (Physiological Psychology), 470 (Sensory and Perceptual Processes), 482 (Developmental Psychology II—Infancy and Childhood), 483 (Developmental Psychology III—Adolescence), 484 (Developmental Psychology IV—Adulthood and Aging), and 490 (Topical Seminar in Psychology). Descriptions of these courses can be found in the current West Chester University Undergraduate Catalog.

Requirements in addition to those existing for undergraduates are imposed for any 400 level course taken for graduate credit.



Social Work

Dr. Main, *Chairperson*

ASSOCIATE PROFESSORS

Charlotte E. Bartlett, M.S.S., *Bryn Mawr College*
John A. Main, D.S.W., *University of Pennsylvania*

ASSISTANT PROFESSORS

Cheryl Hodgins, M.S.W., *University of Texas*
Mildred Joyner, M.S.W., *Howard University*
Mary W. McCullough, M.S.W., *University of North Carolina*
Robert B. McCutcheon, M.S.W., *Rutgers School of Social Work*

The department on a limited basis offers graduate courses in social work to graduate students from other areas as well as to advanced undergraduate majors and nonmajors.

MASTER OF SCIENCE IN ADMINISTRATION: Concentration in Social Work

The Department of Social Work participates in an interdisciplinary degree program leading to a Master of Science in administration with a concentration in social work. See Administration, pages 37-38.

Admission Requirements: A B.S.W. or a B.A. degree in social work or a B.A. or a B.S. degree and three years' social work experience. Without three years' social work experience, student must take SWO 551 and SWO 553.

COURSE DESCRIPTIONS

SOCIAL WORK

Symbol: SWO

520 Theory for Social Work Practice (3) A survey of various psychological/sociological theories with emphasis on their application to social work practice.

521 Social Group Work with Women in Transition (3) Dynamics of social group work process, with attention given to the special knowledge and skills needed for working with separated, divorced, or abused women. Summer.

522 Family Therapy in Social Work (3) Social work skills and the social worker's role as a team

member working with families in therapy. Summer.

523 Supervision and Staff Development (3) Basic concepts of supervision as a medium for instruction and staff development with an emphasis on the skill of supervision.

531 Program Development (3) A study of current funding streams and the techniques of proposal development.

532 Social Legislation (3) Analysis of social

welfare policy with an emphasis on social change.

550-551 Field Instruction (3-6) The application and integration of theoretical concepts and the development of professional skills in a social agency in administrative practice.

552-553 Social Work Seminar (3-6) Students will meet in a weekly 2½ hour practicum for the integration of theory and practice experience.

Sociology—See Anthropology and Sociology

Special Education

Ms. Nickles, *Interim Chairperson*

PROFESSOR

Howard Freeman, Ed.D., *University of Pennsylvania*

ASSOCIATE PROFESSOR

Martin Zlotowski, Ph.D., *Michigan State University*

ASSISTANT PROFESSORS

Judith S. Finkel, M.Ed., *West Chester State College*

Deborah A. Nickles, M.S., *Syracuse University*

The Special Education Department offers a program leading to the Master of Education in Special Education. The program is open to teachers and other professionals working with handicapped people.

THE PROGRAM DOES NOT LEAD TO LEVEL I CERTIFICATION IN SPECIAL EDUCATION.

MASTER OF EDUCATION IN SPECIAL EDUCATION

Admission requirements: All candidates must meet the general requirements for admission to a degree program at West Chester University. These are found in the chapter on admissions.

The following items should be returned with the completed application form to the Office of Graduate Studies:

1. A copy of the applicant's Pennsylvania Instructional I Certificate
2. An extended statement describing the applicant's interests, needs and goals, including the applicant's interest in taking graduate study
3. Evidence of an acceptable score on the Miller Analogies Test

The applicants must arrange for interviews with two members of the Special Education Department. Arrangements are made through the department secretary.

Failure to complete any of these application requirements will result in provisional matriculation status and will limit the number of courses the student may take.

Degree Requirements

1. The student must apply to be admitted to candidacy after the completion of twelve credit hours of work at West Chester University, including EDF 510 and two courses from the Special Education Program. Grade point averages must be consistent with standards required in graduate studies at West Chester.
2. The student must pass a comprehensive examination after the completion of a minimum of 24 semester hours of work—maximum 30 semester hours. The student must file with the chairperson a written request to take the examination no later than two weeks prior to the date of the examination. The examination may be taken twice (a semester interval is required between failure and reexamination). A student who fails the examination twice must obtain approval of the chairperson to take it a third and final time.
3. The student must complete all degree requirements with a cumulative average of 3.0 in areas II and III, with an overall G.P.A. of 2.75.

MASTER OF EDUCATION IN SPECIAL EDUCATION

Program Description

The program is offered on a thesis or non-thesis basis:

Option A: (30 semester hours plus thesis)

This is the thesis program. The student will complete 9 hours in area I, 12 hours in Area II, 9 hours in Area III, and EDA 590.

Option B: (36 semester hours)

Under this plan the student will complete 9 hours in Area I, 15 hours in Area II, and 12 hours in Area III.

Area I—Professional Education

EDF 500 Methods & Materials of Research in Education

EDF 510 Educational Foundations

EDP 550 Advanced Educational Psychology

Area II—Special Education

EDA 541 Psychology of Exceptional Children

EDA 573 Development Assessment

EDA 501 Prescriptive Teaching

EDA 580 Current Issues & Trends

EDA 581 Practicum (Required in Option B)

EDA 590 Research & Thesis (Required in Option A)

Area III—Concentration

Students will select an area of concentration under advisement. Concentration will consist of approved courses from one of the following areas:

The Arts

Communication Disorders

Counseling

Criminal Justice

Educational Research

Elementary Education Areas

Health Education

Instructional Media

Physical Education

Psychology

Reading

Secondary Education

Special Education

Urban Education

COURSE DESCRIPTIONS

Symbol: EDA

The following courses may be taken as electives by anyone in a graduate program, subject to approval from the department and the student's chairperson.

500 Mainstreaming for Exceptional Students

(3) Designed to acquaint classroom teachers with special education students who may be spending some portion of the day in a regular setting. Current regulations and ways of meeting educational needs will be reviewed.

501 Prescriptive Teaching (3) An attempt to guide the teacher to an awareness of the methods by which medical, psychological, behavioral, and academic diagnosis may be converted into relevant educational terms providing for adequate follow-through on specific recommendations. PREREQ: EDA 573.

502 Nature and Needs of the Gifted and Talented (3) Definition, identification and enumeration of the characteristics of the gifted child, with emphasis on the need to provide effective and innovative means of meeting educational needs. Special attention devoted to understanding the nature and problems of the gifted underachiever.

540 Workshop in Special Education (6) An intensive program of observation and instruction of mentally retarded or physically handicapped children. Instructional experience with handicapped children is combined with lecture, demonstration, films, guest speakers, and case study. Primarily for in-service teachers. PREREQ: Permission of coordinator.

541 Psychology of Exceptional Children (3) Psychology of children whose intellectual, physical, social, and/or emotional characteristics are significantly deviant from those of children whose needs are met through normal educational routes.

542 Developmental Disabilities (3) Focus on the concept of developmental disabilities including etiology, manifestations, and identification. Genetic, psychosocial, and environmental factors are considered.

544 Classroom Management (3) Exploration of current practices in the management and modification of behavior. The professional's role in achieving a better basis for meaningful communication with the special child. Problems which may interfere with teacher effectiveness are discussed.

560 Administration and Supervision of Special Education I (3) An introduction to special education training. Concepts and practices presented

will be those unique to the field of special education.

561 Administration and Supervision of Special Education II (3) This course is intended to develop an understanding of the principles and practices used in supervision, emphasizing individual and group processes.

562 Supervision Practicum: Special Education (3) This course is designed to practice those skills gained through course work and necessary for successful performance. This practicum will be done in an education facility and assessed by administrative and supervisory personnel.

571 Childhood Learning Disabilities (3) The study and education of the child with perceptual problems and/or minimal brain damage.

572 The Emotionally Disturbed Child (3) A study of abnormal and atypical behaviors exhibited by disturbed children with emphasis on environmental contingencies and implications. Intervention and prevention strategies will be discussed.

573 Developmental Assessment of Children with Learning Problems (3) Diagnostic procedures and subsequent educational prescriptions useful with children experiencing learning difficulties. PREREQ: EDA 541 or equivalent.

575 Mental Health in Schools (3) Factors affecting the mental health of both children in the classroom and their teachers. Effective means of identifying and responding to problems are brought out through a seminar approach. The course also explores the effect of mental health on classroom climate.

580 Current Issues and Trends (3) Current trends, problems, and issues in special education, teacher education, research and administration will be explored. Emerging concepts relating to special education and exceptional children will be emphasized.

581 Practicum: Special Education (3) Intended to provide the student an opportunity to put skills gained through course work into practice under supervision from the department. Weekly seminar required.

590 Independent Study (1-3)

591 Thesis and Research (6) The course will provide the student the opportunity to learn how to evaluate and interpret published research, to conduct a critical research review, and to develop and carry out an original research paper. Offered on a two-semester basis with each part carrying 3 credits. PREREQ: EDF 500.

Speech Communication and Theatre



Dr. Klinzing, *Chairperson*

PROFESSORS

Diane O. Casagrande, Ph.D., *Temple University*

William M. Morehouse, Ph.D., *Purdue University*

ASSOCIATE PROFESSORS

Jay H. Berkowitz, M.A., *Temple University*

Dennis R. Klinzing, Ph.D., *Pennsylvania State University*

ASSISTANT PROFESSOR

Saundra M. Hall, M.A., *Ohio State University*

COURSE DESCRIPTIONS

SPEECH COMMUNICATION

Symbol: SPC

515 General Semantics (also LIN 515) (3) Introduction to the relativistic language concepts of Korzybski and his followers. The course focuses on what language does to people and the subsequent effects on communication.

517 Producing the Television Program (Non-dramatic) (3) Basic concepts of television planning and production for the nondramatic format. The student uses the tools of television. (Lecture and laboratory.)

518 Television Program Directing (Dramatic) (3) Continuation and development of skills and knowledge in the use of television equipment; application of the arts of the theatre and film. (Lecture and laboratory.) PREREQ: THA 517.

550 Listening: Verbal and Nonverbal Perceptions (3) A survey of research in listening behavior and related nonverbal variables. Identifica-

tion of important characteristics of effective listeners. Application to communication activities in the classroom.

COURSE DESCRIPTIONS

THEATRE

Symbol: THA

506 Theatre Theory and Production (3) A survey of theatre history and practice. Students select specific areas of production and style for classroom presentation, analysis, and research.

516 Theory and Application of Creative Dramatics (3) The use of creative dramatics as a teaching method. Research and application of theories and techniques.

550 Summer Drama Workshop (1-6) An intensive combination of instruction and applied production experiences. Graduate students will research production theories and submit scholarly papers at the end of the session. Summer only.

Teaching English as a Second Language



Dr. Falgie and Dr. Smith, *Program Coordinators*

Diane O. Casagrande, *Professor of Speech*
W. Stephen Croddy, *Professor of Philosophy*
Joseph Falgie, Jr., *Professor of English and Linguistics*
John T. Kelly, *Associate Professor of English*
Willie E. Page, Jr., *Associate Professor of English*
Philip D. Smith, Jr., *Professor of TESL and Linguistics*
Paul A. Stoller, *Assistant Professor of Anthropology*

The Master of Arts in Teaching English as a Second Language is an interdisciplinary program contributed to by the Departments of Anthropology-Sociology, English, Foreign Languages, Philosophy, and Speech Communication and Theatre. The program is designed for those preparing to teach English to students whose first language is not English. Students wishing to enter the program must consult one of the coordinators.

In addition to meeting the general requirements for a master's degree at West Chester, the candidate must (1) present an acceptable baccalaureate degree which includes at least 24 semester hours in the area of English/Foreign Languages/Linguistics, at least 6 semester hours in the area of Anthropology/Psychology/Sociology, and a course in teaching reading (may be taken as a program elective if lacking); (2) take the verbal and quantitative tests of the Graduate Record Examination or the Miller Analogies Test if deemed necessary; (3) demonstrate adequate proficiency in a foreign language if the student is a native speaker of English or adequate proficiency in English if the student is a non-native speaker of English; and (4) fulfill the course requirements and pass a written and/or oral comprehensive examination, offered on the second Wednesday of October and March.

M.A. IN TEACHING AS A SECOND LANGUAGE (TESL)

33 Semester Hours

Required Courses

24 s.h.

LIN 501, 503; LAN 500, 502, 503; ENG 575, 576, 577

Students submitting equivalent courses for any of the above may substitute, under advisement, courses from the groups below.

Electives

9 s.h.

Selected from the groups below. At least one course must be selected from Group 1.

Group 1: ENG 579; LIN 540, 555, 580

Group 2: ENG 578, 590; LAN 504, 505, 580, 590, 600, 610; LIN 504, 505, 512, 590; PHI 506, 523; SPC 515

With the approval of the coordinators, students wishing to acquire certification in English while enrolled in this program may use up to 6 hours of electives for this purpose. Students who have completed a minimum of 24 semester hours in approved courses are eligible for a certificate in TESL.

For descriptions of courses under this program see English (ENG); Foreign Languages (LAN); Linguistics (LIN); Philosophy (PHI); and Speech Communication and Theatre (SPC).

Women's Studies

Dr. Sessa, *Coordinator*

Mary Ann Duffy, *Assistant Professor, Library Services; Documents and Maps Librarian*
Mary E. Crawford, *Associate Professor of Psychology*
Harvey C. Greisman, *Associate Professor of Sociology*
Madelyn Gutwirth, *Professor of Foreign Languages*
Saundra Hall, *Assistant Professor of Communication and Theatre*
Joan Hasselquist, *Assistant Professor; Chairperson, Childhood Studies and Reading*
Pamela Hemphill, *Professor of Art*
Mary A. Keetz, *Professor of Childhood, Studies and Reading; Director, School of Education*
Mary L. Kline, *Assistant Professor of Nursing*
Monita Lank, *Professor of Physical Education*
Alice B. Markow, *Professor of English*
Lynette F. McGrath, *Professor of English*
Christina McCawley, *Chairperson, Library Services; Assistant Professor*
Mary McCollough, *Assistant Professor of Social Work*
Tahany Naggar, *Associate Professor of Economics, Chairperson, Department of Economics*
William B. Peters, *Associate Professor of History*
Mary Ann Reiss, *Assistant Professor of Foreign Languages*
Arlene Rengert, *Associate Professor of Geography*
Anne Sessa, *Professor of History*
Carolyn G. Simmendinger, *Associate Professor of Art*
Jane B. Swan, *Professor of History*
John J. Turner, *Professor of History*
Richard J. Webster, *Professor of History; Coordinator, American Studies*

The Women's Studies Program consists of an interrelated group of courses offered in both arts and sciences and professional studies. Graduate courses include EDE 589 Teaching Skills to Combat Sexism, ECO 503 Economic Role of Women, PSC 515 Women and Politics, SWO 521 Social Group Work with Women in Transition, FRE 509 Women and Men in French Literature, PSY 465 Psychology of Women, and PED 685 Women's Exercise and Sports.

The graduate student may also pursue a Master of Science in administration degree with the concentration leadership for women. This concentration involves six courses in administrative skill areas and six additional courses which enable the student to develop a mode of leadership appropriate to workplaces in which access to organizational power is inequitable for sexes of equal training and talent. See Leadership for Women and Administration.



CAMPUS MAP



NORTH CAMPUS

KEY

1. Ramsey Hall
2. Tyson Hall
3. Goshen Hall
4. McCarthy Hall
5. Lawrence Center
6. Maintenance Garage
7. Housekeeping Services
8. Boiler Plant
9. Maintenance Building
10. Mitchell Hall
11. Reynolds Hall
12. Swope Hall
13. Sanderson Hall
14. Schmidt Hall
15. Wayne Hall
16. Hollinger Field House
17. Schmucker Science Center
18. Killingier Hall
19. Ruby Jones Hall
20. Philips Memorial Hall
21. Anderson Hall
22. Recitation Hall
23. Old Library
24. Fancis Harvey Green Library
25. Learning and Research Center
26. Health and Physical Education Cent
27. Farrell Stadium
28. Tanglewood (President's residence)
29. Wilmington Field
30. Smith House
31. New Main Hall
32. Sykes Student Union
33. Robert B. Gordon, Natural Area for Environmental Studies
34. Alumni House
35. 110 Rosedale (Admissions)
36. 811 Roslyn (APSCUP, AFSCME)
37. 809 Roslyn (General Services)
38. McCoy Farm
39. Glen Echo



SOUTH CAMPUS

WEST CHESTER STATE COLLEGE MAP

COMMONWEALTH OF PENNSYLVANIA

DICK THORNBURGH, Governor

BOARD OF GOVERNORS
STATE SYSTEM OF HIGHER EDUCATION

JAMES H. McCORMICK, *Interim Chancellor*

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EVELYN H. CRAWFORD
FITZ E. DIXON, JR.
REBECCA F. GROSS
JAMES A. HUGHES
ANNE JACKSON
JAMES L. LARSON

FLOYD M. MAINS
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Glen Riddle
Devon
West Chester
Newtown Square
Philadelphia
West Chester
Morton
Ridley Park



ADMINISTRATION



President	Kenneth L. Perrin
Director of Affirmative Action	Lawrence A. Dowdy
Director of Alumni Affairs	Harry R. Kerr, Jr.
Director of Athletics	Richard B. Yoder
Vice-President for Academic Affairs (Acting)	William M. Morehouse
Associate Vice-President for Academic Affairs (Acting)	Philip D. Smith
Dean of Graduate Studies	Lon W. Weber
Dean, Faculty of Arts and Sciences	Jean A. Dowdall
Coordinator, Faculty of Arts and Sciences	Elizabeth Eldredge
Coordinator, Faculty of Arts and Sciences	Vacant
Dean, Faculty of Professional Studies (Acting)	Malinda Murray
Faculty Director, School of Business & Public Affairs	Philip M. DeMoss
Faculty Director, School of Education	Mary A. Keetz
Faculty Director, School of Health Sciences	John D. Lemcke
Faculty Director, School of Music	James D. Sullivan
Director, Learning Center (Acting)	Vivian C. Nix-Early
Director of Academic Advisement Center	Louis A. Casciato
Director of Academic Development Program	Robert J. Szabo
Director of Admissions	William E. Kipp
Director of Continuing Education and Evening Studies	Ernest L. Peters
Director of Library Services	Frank Q. Helms
Director of Research and Related Services	Martin J. Higgins
Director of Workshops, Institutes, and Conferences	Ronald M. Jenkins
Vice-President for Student Affairs (Acting)	Thomas W. Spierling
Dean of Students	Rhoda L. Todd
Director of Orientation	R. Godfrey Studenmund
Associate Dean of Students	Thomas R. Lordan
Director, Office of Computing and Information Resources (Interim)	Jack Steinberg
Director of Administrative Services	Edward A. Norris
Registrar	Philip O. Austin
Director of Career Development Center	Walter R. Blair
Director of Counseling Center	George F. Kane
Director of Financial Aid	Rose Mary Stelma
Director of Health Center	Philip E. Kistler, M.D.
Director of Housing and Residence Life	Stanley P. Cahill
Director of Off Campus Life	Robert H. Jensen
Vice-President for Administrative and Fiscal Affairs (Acting)	Stanley J. Yarosewick
Associate Vice-President for Fiscal Affairs (Acting)	Peter C. Fackler
Budget Director	Everett E. Shaefer
Fiscal Manager	Doris S. Dill
Director of Facilities	William A. Peoples, Jr.
Director of Personnel	William H. Schweitzer
Director of Public Safety	William S. Hayes, Jr.



Faculty



September, 1983

KENNETH L. PERRIN (1980) *President*
B.A., Occidental College; M.S., California State University at Long Beach; Ph.D., Stanford University Medical School

WILLIAM M. MOREHOUSE (1969) *Acting Vice-President for Academic Affairs; Professor of Communication and Theatre*
B.S., M.S., Ph.D., Purdue University

STANLEY J. YAROSEWICK (1969) *Acting Vice-President for Administrative and Fiscal Affairs; Professor of Physics*
B.S., University of New Hampshire; M.S., Ph.D., Clarkson College of Technology

THOMAS W. SPIERLING (1972) *Acting Vice-President for Student Affairs; Associate Professor*
B.A., M.A., Ph.D., Michigan State University

CHRISTINE H. ABBOTT (1979) *Assistant Professor of Communication and Theatre*
B.A., Virginia Polytechnic Institute; M.F.A., Temple University

THOMAS J. AHLBORN (1967) *Associate Professor of Mathematics*
B.S., California University; M.A., Kent State University

SYLVIA MOSS AHRAJIAN (1976) *Assistant Professor of Instrumental Music*
B.Mus., Juilliard School of Music; M.Mus., Indiana University, Bloomington

SHIRLEY T. ALIFERIS (1968) *Associate Professor of Keyboard Music*
A.R.C.T., Royal Conservatory of Music of Toronto; Artist Diploma, University of Toronto; M.Mus., Indiana University

LEILA B. ALSON (1973) *Assistant Professor of Speech Pathology and Audiology*
B.A., Hunter College; M.A., Ohio University

LOIS W. ALT (1966) *Associate Professor of Vocal and Choral Music*
B.S., Indiana University of Pennsylvania; B.Mus., M.Mus., University of Michigan

WILLIAM B. ANDERSON (1975) *Chairperson, Department of Criminal Justice, Assistant Professor*

JEAN A. DOWDALL (1982) *Dean, Faculty of Arts and Sciences, Professor of Sociology*
B.A., Brown University; M.A., University of Rochester; Ph.D., Brown University

MALINDA MURRAY (1978) *Acting Dean, Faculty of Professional Studies; Associate Professor of Nursing*
B.S.N., Emory University; M.Ed, Teacher's College, Columbia University; Ed.D., Columbia University

RHODA L. TODD (1976) *Dean of Students*
B.S., Ohio University; M.Ed., University of Cincinnati

LON W. WEBER (1977) *Dean, Graduate Studies*
B.A., University of Wisconsin—Platteville; M.S., Ph.D., University of Wisconsin—Madison

B.A., Pennsylvania State University

LESTER F. AUNGST (1973) *Associate Professor of Speech Pathology and Audiology*
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OGUZ N. BABUROGLU (1982) *Assistant Professor, Department of Business Administration*
B.S., University of Sussex (Brighton, U.K.); Post.D., University of Lancaster (Lancaster, U.K.)

JOHN H. BAKER (1974) *Instructor of Art*
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ANGELOS C. BALLAS (1972) *Associate Professor of Business Administration*
B.S., M.A., New York University, Ph.D., New School for Social Research

PAUL A. BANYACSKI (1965) *Associate Professor of Philosophy*
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JUDITH BARON (1974) *Psychologist, Counseling Center; Associate Professor*
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EDWARD A. BARROW (1956) *Chairperson, Department of Instrumental Music; Professor*
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CHARLOTTE E. BARTLETT (1972) *Associate Professor of Social Work*
B.A., University of Pennsylvania; M.S.S., Bryn Mawr College

MARSHALL J. BECKER (1968) *Professor of Anthropology*
B.A., M.A., Ph.D., University of Pennsylvania

ROBERT M. BEDFORD (1966) *Associate Professor of Keyboard Music*
B.Mus., M.S., The Juilliard School

CAROL BELMAIN (1971) *Associate Professor of Music Education*
B.S., M.S., Ithaca College; D.M.A., Temple University

JAY H. BERKOWITZ (1969) *Associate Professor of Communication and Theatre*
B.S., M.A., Temple University

ROBERT W. BERNHARDT (1965) *Associate Professor of Biology*
B.S., M.S., Syracuse University

F. ROBERT BIELSKI (1961) *Chairperson, Department of Government and Planning; Associate Professor of Geography*
B.S., Indiana State University; M.A., University of Illinois

EDWARD C. BITNER (1972) *Assistant Professor of Physical Education*
B.S., West Chester University; M.S., University of Southern California

BARBARA R. BLACK (1970) *Director, Greek Life and Student Organizations; Assistant Professor, Educational Services*
B.S., Cheyney University; M.A., Kean College

WALTER R. BLAIR (1966) *Director of Career Development Center; Associate Professor*
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RICHARD E. BLAKE (1975) *Assistant Professor of Art*
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JOHN BOSWORTH-FLING (1965) *Associate Professor of Journalism and English*
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BETTY FINCH BOYLE (1972) *Assistant Professor of Health*
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THOMAS J. BRADY (1967) *Professor of Political Science*
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JOSEPH BROWNE (1966) *Chairperson, Department of English; Professor*
Diplome en Philosophie, St. Jerome's College (University of Ottawa); B.S., St. Joseph's University (Pa.); M.A., Ph.D., University of Pennsylvania

STELLA P. BRUTON (1964) *Associate Professor of English*
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WALTER E. BUECHELE, JR. (1962) *Director of Summer Sessions; Professor of Counselor, Secondary, and Professional Education*
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Pennsylvania; Ph.D., University of Pittsburgh

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B.A., Allegheny College; M.A., Case Western Reserve University

A. WAYNE BURTON (1965) *Associate Professor of Political Science*
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K. ELEANOR CHRISTENSEN (1972) *Assistant Chairperson, Department of Childhood Studies and Reading; Associate Professor*
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CARMELA L. CINQUINA (1963) *Professor of Biology*
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MARY ELIZABETH CLEARY (1967) *Assistant Chairperson, Department of Counselor, Secondary and Professional Education; Professor*
B.A., St. Joseph's College for Women; A.M., Ed.D., George Washington University

NORMAN A. COCHRAN (1956) *Assistant Chairperson, Department of Physical Education; Professor*
B.S., West Chester University; M.A., Ed.D., University of Maryland

BERNARD COHEN (1974) *Professor of Psychology*
B.A., Temple University; Ph.D., New York University

IRVING HERSCH COHEN (1969) *Professor of Music History*
B.A., M.A., Ph.D., New York University

MILTON R. COLLIER (1967) *Associate Professor of Physical Education*
B.S., M.A., East Carolina University

UEL W. COMBS, JR. (1967) *Assistant Professor of English*

- B.A., Adams State College; M.A., Temple University
- STELLA F. CONAWAY (1966) *Assistant Professor of Vocal and Choral Music*
B.Mus., M.Mus., The Philadelphia College of the Performing Arts
- THOMAS J. CORR (1966) *Assistant Chairperson, Department of English; Associate Professor*
A.M., St. Joseph's College (Pa.); M.A., John Carroll University; Ph.D., Duquesne University
- JOYCE R. COUNTESS (1976) *Assistant Professor of Physical Education*
B.S., Douglas College of Rutgers University; M.A., Trenton State College; Ed.D., Temple University
- JON A. COWEN (1967) *Assistant Professor of Sociology*
B.A., University of Massachusetts; A.M., University of Pennsylvania
- MARY E. CRAWFORD (1978) *Associate Professor of Psychology*
B.S., West Chester University; M.A., Ph.D., University of Delaware
- W. STEPHEN CRODDY (1969) *Professor of Philosophy*
B.A., University of Southern California; M.A., Temple University; Ph.D., Brown University
- FLORENCE JOSEPH CROWLEY (1968) *Professor of History*
B.A., M.A., Brooklyn College; Ph.D., University of Florida
- GEORGANN CULLEN (1964) *Associate Professor of Biology*
B.S., M.A., Kent State University
- RONALD N. DEFINO (1973) *Assistant Professor of Art*
B.S., Philadelphia College of Art; M.F.A., Tyler School of Art
- HARRY H. DEISCHER (1966) *Chairperson, Department of Counselor, Secondary, and Professional Education; Professor*
B.S., M.A., M.S., Ed.D., University of Pennsylvania
- JOHN L. DE MILLION, JR. (1970) *Associate Professor of Health*
B.S., Slippery Rock University; M.Ed., University of Pittsburgh
- PHILIP M. DE MOSS (1972) *Faculty Director, School of Business and Public Affairs; Associate Professor of Economics*
B.A., Park College; M.A., Ph.D., Kansas State University
- THOMAS DE MOTT (1969) *Professor of Biology*
A.M.E., Widener College; V.M.D., University of Pennsylvania
- KATHLEEN DEVLIN-KELLY (1976) *Assistant Professor of Nursing*
B.S.N., Georgetown University; M.S.N., Georgetown University; M.S.N., Boston University.
- ANDREW E. DINNIMAN (1972) *Associate Professor, Educational Services*
B.A., University of Connecticut; M.A., University of Maryland; Ed.D., Pennsylvania State University
- PHILLIP B. DONLEY (1965) *Professor of Physical Education*
B.S., M.S., West Virginia University; Certificate in Physical Therapy, D.T. Watson School of Physiatrics
- JOHN E. C. DORCHESTER (1961) *Professor of Biology*
B.A., M.A., University of British Columbia, Ph.D., University of Toronto
- W. LARRY DORMINY (1972) *Associate Professor of Vocal and Choral Music*
B.Mus., Jacksonville University; M.M., Florida State University; D.M., Indiana University
- RAYMOND A. DOYLE (1965) *Associate Professor of History*
B.S., M.S., West Chester University
- MARY ANNE DUFFY (1969) *Assistant Professor of Library Services*
A.B., Immaculata College; M.S.L.S., Drexel University
- A. SCOTT DUNLAP (1967) *Associate Professor of Childhood Studies and Reading*
B.A., King's College (N.Y.); M.Div., Eastern Baptist Theological Seminary
- KEVIN G. DUNLEAVY (1979) *Assistant Professor of Economics*
B.A., University of Delaware; Ph.D., Duke University
- MARC L. DURAND (1968) *Professor of Chemistry*
B.S., Holy Cross College; Ph.D., University of New Hampshire
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B. PAUL ROSS, *Education*
W. CLYDE SKILLEN, *Biology*
RUSSELL L. STURZEBECKER, *Health and Physical Education*
EDWARD T. TWARDOWSKI, *Health and Physical Education*
S. ELIZABETH TYSON, *English*
EARLE C. WATERS, *Health and Physical Education*
JAMES J. WRIGHT, *Music Theory and Composition*

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ACADEMIC CALENDAR 1984-85

FALL SEMESTER 1984

September 4, 5	Late Scheduling, Department
Tuesday, Wednesday	Faculty Meetings (as announced)
September 5, Wednesday	Classes begin (3:30 p.m.)
September 27, Thursday	Rosh Hashanah*
October 6, Saturday	Yom Kippur*
November 21, Wednesday	Thanksgiving Recess begins (3:30 p.m.)
November 26, Monday	Thanksgiving Recess ends (8:00 a.m.)
December 15-21	Examination Period
December 15, Saturday	Commencement (Saturday)
December 22, Saturday	Fall Semester ends (close of classes)

SPRING SEMESTER 1985

January 16-18	Late Scheduling
Wednesday-Friday	
January 21, Monday	Classes begin
March 9, Saturday	Mid-term recess begins (close of classes)
March 18, Monday	Mid-term recess ends (8:00 a.m.)
April 4, Thursday	Spring break begins (close of classes)
April 8, Monday	Spring break ends (8:00 a.m.)
May 10, Friday	Reading Day (no classes)
May 11-17	Examination Period
May 17, Friday	Spring Semester ends (close of classes)
May 18, Saturday	Commencement

SUMMER SESSIONS 1985

Pre Session	Monday, June 3 - Friday, June 21
Regular Session	Monday, June 24 - Friday, August 2
Post Session	Monday, August 5 - Friday, August 23

*Although the University will be in session, no examinations are to be administered on these major Jewish Holy Days.

West Chester
University
West Chester, Pennsylvania 19383

Non-Profit Organization
U.S. POSTAGE PAID
West Chester, PA 19383
PERMIT NO. 309

THIRD CLASS

West Chester University



Summer Sessions
'85

UNDERGRADUATE COURSES

CALENDAR AND REGISTRATION INFORMATION

UNDERGRADUATE SUMMER SESSIONS

1985

NOTE: Scheduling and payment begin April 15 and continue until the termination date given below for each session. In-person registration takes place in the Learning and Research Center.

Students at late registration/late payment

register according to the first letter in their last name. No student may register at other than the scheduled hour and date. However, another person may register for you. Late registration takes place in the Learning and Research Center.

APRIL						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

MAY						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

JUNE						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

JULY						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

AUGUST						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

PRE SESSION

Beginning of Scheduling Period	Monday, April 15
Deadline for Mail Scheduling and Payment	Friday, May 17
Deadline for In-person Scheduling and Payment	Friday, May 24
Late-Registration (In-person only) in the Learning and Research Center (\$15.00 Late Fee)	Thursday, May 30
A through L	2:30 to 3:30 p.m.
M through Z	3:30 to 4:30 p.m.
A through Z	5:30 to 6:30 p.m.
Classes begin 8:00 a.m.	Monday, June 3
Classes end	Friday, June 21

REGULAR SESSION

Beginning of Scheduling Period	Monday, April 15
Deadline for Mail Scheduling and Payment	Friday, June 7
Deadline for In-person Scheduling and Payment	Friday, June 14
Late Registration (In-person only) in the Learning and Research Center (\$15.00 Late Fee)	Thursday, June 20
A through L	2:30 to 3:30 p.m.
M through Z	3:30 to 4:30 p.m.
A through Z	5:30 to 6:30 p.m.
Classes begin 8:00 a.m.	Monday, June 24
Holidays	Thursday & Friday, July 4 & 5
Classes end	Friday, August 2

POST SESSION

Beginning of Scheduling Period	Monday, April 15
Deadline for Mail Scheduling and Payment	Friday, July 19
Deadline for In-person Scheduling and Payment	Friday, July 26
Late Registration (In-person only) in the Learning and Research Center (\$15.00 Late Fee)	Thursday, August 1
A through L	1:30 to 2:30 p.m.
M through Z	2:30 to 3:30 p.m.
Classes begin 8:00 a.m.	Monday, August 5
Classes end	Friday, August 23

TELEPHONES (AREA CODE 215)

Summer Sessions	436-2230
Registrar	436-3541
Graduate Office	436-2943

The Summer Sessions and Graduate Offices are open Monday through Friday, 8:00 a.m. to 4:00 p.m. The Office of the Registrar is open to the public Monday through Friday, 9:00 a.m. to 12:00 Noon and 1:00 to 3:00 p.m.

West Chester University

West Chester, Pennsylvania ■ 19383



SUMMER 1985 SESSIONS
UNDERGRADUATE COURSES

Accreditation

West Chester University is accredited by The Middle States Association of Colleges and Secondary Schools, The National Council for Accreditation of Teacher Education, The National Athletic Training Association, The National Association of Schools of Music, The Council on Social Work Education, The National League for Nursing, The American Chemical Society, and the Commission on Accreditation in Clinical Chemistry, and the Joint Review Committee for Respiratory Therapy Education.

Important Notes

- **The times and days of classes are subject to change.**
- **Each summer session offering is contingent upon adequate enrollment in the judgment of University administration.**
- **The catalog is not to be regarded as an irrevocable contract between the student and West Chester University.**
- **Admission to a summer session does not imply admission for the academic year.**
- **Students may have other persons register for them.**

Non-Discrimination/Affirmative Action Policy

West Chester University is committed to providing leadership in extending equal opportunities to all individuals. Accordingly, the University will continue to make every effort to provide these rights to all persons regardless of race, religion, sex, national origin, ancestry, age, marital status, sexual orientation, handicap, or veteran status. This policy applies to all members of the University community including students, faculty, staff and administrators. It also applies to all applicants for admission or employment and all participants in university-sponsored activities.

This policy is in compliance with federal and state laws, including Titles VI and VII of the Civil Rights Act of 1964, Title IX of the Educational Amendment of 1972, Section 504 of the Rehabilitation Act of 1973 and Executive Order of the Governor of Pennsylvania.

Overall responsibility for the implementation of the affirmative action/equal opportunity policy has been assigned to Mr. Lawrence A. Dowdy, Affirmative Action Director. Any individual having suggestions, problems, complaints, or grievance with regard to equal opportunity or affirmative action is encouraged to contact Mr. Dowdy, located in Smith House, 1st floor, (215) 436-2433.

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Inside
front and
back covers



General

Housing

Housing on campus is available to summer students. Dormitories are conveniently located near both Lawrence Center, which houses the dining rooms, post office and snack bar, and Sykes Union Building with its many student services.

To apply for summer housing call or write to

Housing Office

206 Sykes Union Building
West Chester University
West Chester, Pa. 19383
(215) 436-3305

Application should be received at least two weeks prior to the beginning of the session for which housing is desired.

Student Services

Summer students at West Chester University have available the same full range of services provided during the academic year.

The **Career Development Center**, which provides career planning and placement services, is located on the second floor of Lawrence Center. For more information, call 436-2501.

The **Counseling Center**, staffed by licensed psychologists, offers individual counseling for personal problem solving and other counseling services on a confidential basis. Come to the second floor of Lawrence Center or call 436-2301.

Financial aid is available to summer students in the form of work-study employment, student loans and student grants. Come to room 139, Learning and Research Center or call 436-2627.

The **Student Health Service** provides first-aid and routine treatment of minor illnesses. Located in Reynolds Hall, the office is open Monday through Friday from 8:00 a.m. to Midnight. Summer students may take advantage of a group accident and health policy, approved by the University, which covers them for the 12 weeks of summer sessions.

Recreational Services provides organized recreational activities for summer students and offers rental and loan of equipment for student use. There are trips scheduled to concerts, area points of interest and professional baseball games as well as on-campus activities such as intramural softball and volleyball. Campus facilities including the gymnasiums, pool, and tennis courts are open for informal recreational use. For additional information, call 436-2133.

About West Chester

West Chester University is located in the rolling hills of Chester County just 25 miles west of downtown Philadelphia. It offers students many of the advantages of both the city and

Information

countryside. Near such historical, cultural, and recreational attractions as Independence Hall, Brandywine River Museum, Longwood Gardens, and Valley Forge Music Fair, West Chester is an ideal place to spend the summer.

West Chester University's 385-acre campus provides students with modern classrooms and laboratories, an excellent library and comfortable dormitories. The University is within walking distance of downtown West Chester and public transportation into Philadelphia.

During the regular academic year, West Chester University enrolls some 6,400 students in its full-time undergraduate programs, 1,900 others as part-time undergraduates, and 1,200 students in graduate programs. Students may pursue associate, baccalaureate, and master's degrees as well as enroll in a number of certification and other non-degree programs.



Academic

Credits

During summer sessions credits are usually earned at the rate of one semester hour of credit for each week of class. A student who attends all three sessions may earn 12 credits.

Summer School Overload Policy

The normal student load for summer sessions is 3 hours for Pre Session, 6 hours for Regular Session, and 3 hours for Post Session. Any exceptions to this rule must be approved by the chairperson of the department in which the student is majoring.

A student will not be allowed to enroll in more than 15 hours in any one summer nor be allowed more than one additional course per session. A student should not seek permission to carry an overload if his or her cumulative average is below 2.75. Exceptional situations will be reviewed by the dean of enrollment management.

Dropping a Course

A. During the schedule change period of each session a student may drop a course, thereby receiving no grade, by filing a schedule change form in the Office of the Registrar during the dropadd period.

B. A grade of "W" will be entered on the academic record of any student who drops a course between June 4-7 for Pre Session, June 26-July 5 for Regular Session and August 6-9 for Post Session.

Students may drop a course between June 10-14 for Pre Session, July 8-19 for Regular Session and August 12-16 for Post Session and receive a grade of WP or WF from their instructor, only if they have a compelling special reason or emergency.

A student who is doing passing work at the time of approved withdrawal receives a WP, which is not treated as a grade. A student who is failing receives a WF, computed as an F. After the end of the WPWF period, students will receive whatever grade the professor assigns (excluding WF, WP), but are not entitled to selectively withdraw from particular classes.

STUDENTS WHO FAIL TO DROP A COURSE OFFICIALLY CAN EXPECT TO RECEIVE A GRADE OF "F" FOR THE COURSE.

Refer to "Fees and Expenses", page 10, for the refund policy and procedure.

Course Changes

After the deadline dates for mail and in-person registration, the course change periods are:

Pre Session: June 3, 1985

Regular Session: June 24 & 25, 1985

Information

Post Session: August 5, 1985

Course changes are made in the Office of the Registrar.

Course changes may also be made before the scheduling deadline of a session in the Office of the Registrar. See page 9.

Students who expect to graduate in August, at the end of the summer sessions, should have come to the Office of the Registrar and filed a Graduation Application by February 8, 1985. August graduates may participate in the May Commencement exercises if they file their notice of intention to graduate by February 8, 1985.

The same regulations for student procedure and conduct that are in effect during the academic year are also in effect during summer sessions. Deadlines are adjusted appropriately.

Academic policies may be found in the Undergraduate Studies Catalog.

Summer Graduation

University Regulations and Policies



How to Register

Enrollment for West Chester University Summer Sessions is a simple process of scheduling and payment which can be completed by mail or in person by meeting the scheduling/payment deadlines given in the Summer Sessions Calendar on the inside front cover. Students may schedule for any or all three summer sessions at the same time. The scheduling/registration process has been completed only when payment has been received by the University.

STUDENTS MUST REGISTER FOR ALL COURSES IN ANY PROGRAM BY THE REGISTRATION DEADLINES FOR THE SESSION DURING WHICH THE COURSES BEGIN, EVEN FOR COURSES WHICH START ON DATES OTHER THAN THE THREE SESSION STARTING DATES AND WHICH RUN FOR IRREGULAR PERIODS.

In-Person Regis- tration

The scheduling and payment period begins in April and continues until the scheduling and payment deadlines for each session (see calendar). University offices are open from 8:30 a.m. to 12:00 Noon and 1:00 to 3:30 p.m. daily. Students should allow at least 30 minutes to complete the scheduling process.

Completed forms and payment must be received in the Student Accounts Office prior to the deadlines or the student will be charged a late fee.

1. Obtain a scheduling form. If a scheduling information form (white card) is not attached to this catalog, get one from the Summer Sessions Office, Room 143, Learning and Research Center.
2. Complete the scheduling form. Students from other colleges and high schools must have the signature of an appropriate official.
3. Return the completed scheduling form to the Summer Sessions Office for approval.
4. Take the scheduling form to the Office of the Registrar and obtain a bill. Pay the bill in the Student Accounts Office. A bill payment confirmation form will be mailed to you the week prior to the beginning of classes.

NOTE

It is possible to change a course in the Office of the Registrar before the in-person scheduling deadline for a particular session. After that, no course changes may be made until the first day of classes.

Late Regis- tration

Late registration and payment take place in the Learning and Research Center, at the corner of High Street and Rosedale Avenue.

To schedule by mail, call the Summer Sessions Office at 436-2230 and you will be sent the requested information. After returning the scheduling card to the Summer Sessions Office, by mail or in person, you will receive a bill in the mail which should be returned with payment to the Student Accounts Office (LRC 114), by mail or in person, by the deadline dates of each session. **REMEMBER:** You will receive a bill payment confirmation form during the week prior to the beginning of classes for each respective session.

Mail Registration

After the deadline dates for mail and in-person registration, the course change periods are:

Pre Session: June 3, 1985

Regular Session: June 24 & 25, 1985

Post Session: August 5, 1985

Go to the Office of the Registrar.

Course changes may also be made before the scheduling deadline of a session in the Office of the Registrar.

Course Changes



Fees and

Special Notes:

- The fees listed below reflect charges as of the Fall Semester, 1984. For up-to-date information, contact the Student Accounts Office, (215) 436-2552.
- FEES ARE SUBJECT TO CHANGE WITHOUT NOTICE.
- Each summer session offering is contingent upon adequate enrollment in the judgment of University administration.
- All charges for a session must be paid by deadline payment dates or a late fee of \$15.00 will be incurred.
- Unless specified otherwise, fees are paid by check or money order payable to: West Chester University. Your check or money order serves as your receipt.
- IN-STATE AND OUT-OF-STATE SUMMER STUDENTS PAY THE SAME BASIC FEE. This common basic fee is applicable to summer sessions only.

Basic Fee	\$66.00 per semester hour of credit or equivalent charge of 0-credit courses.
Housing Fee	(Room and Meals) Regular Session—\$366.00 Pre or Post Session—\$183.00 No reduction for absences of a few days Private room: \$19.00 extra per week
Music Instruction Fee	(Regular Session) Piano, Organ, Instrument or Voice, two half-hour lessons per week—\$45.00 Pipe Organ for Practice Regular Session—\$12.00 Pre or Post Session—\$6.00 No charge for piano for practice Rental of Band or Orchestral Instruments Regular Session—\$6.00 Pre or Post Session—\$3.00

Expenses

All Students

Regular Session—\$2.00

Pre or Post Session—\$1.00

**Community
Center Fee**

A \$15.00 late fee is charged to all students (1) who fail to schedule prior to the scheduling deadline for a session and fail to pay by the designated deadline for the session (those who both schedule and pay late), (2) who schedule properly but fail to pay by the designated deadline for the session (those who schedule on time but pay late.)

Late Fee

See the Summer Sessions Calendar for scheduling deadlines and late registration days.

A fee of \$25.00 is charged to accounts with a stopped payment check or check drawn for insufficient funds. The late registration fee of \$15.00 also applies.

**Dishonored
Check Fee**

All refund requests must be made in writing during the appropriate session. Contact the Office of Registrar, Learning and Research Center.

Refunds

Prior to and including the day of late registration for each session (Pre, Regular, and Post) students who completely withdraw for that session are entitled to a full refund. Students withdrawing after late registration, but before classes begin are entitled to a refund of all but \$10.00. Once classes begin and through the first week of Pre and Post sessions, students are entitled to a 50% refund. After the second week of regular session, no refunds are permitted.

There will be no refund of housing fees after classes begin; meal fee refunds are prorated on a weekly basis.

Pre Session Offerings

Monday, June 3
through
Friday, June 21

Unless noted otherwise, classes meet Monday through Friday. Classes which meet from 8:00 a.m. to 12:00 Noon have a break from 9:30 to 10:30 a.m.

Key	*	Meets General Education Requirements
	W	Writing Emphasis
	\$	Additional Fee Required
	M	Majors Only
	P	Permission of Instructor

EXPLANATION OF COURSE DESIGNATIONS

The courses in this catalog are identified in three parts: abbreviation, course number and section number.

Key to Section Numbers:

	Abr.	Num.	Sec.
Pre Session—20 series	ART	101	21
Regular Session—30 series	ART	101	31
Post Session—40 series	ART	101	41

Semester hours of credit are shown in parentheses following course titles. Course descriptions are in the West Chester University Undergraduate Studies Catalog. For additional information, consult the appropriate department.

Accounting

8:00 a.m. - 12:00 Noon

- ACC 201-21 Principles of Accounting I (3)
 ACC 202-21 Principles of Accounting II (3)
 ACC 303-21 Cost Accounting I (3)
 ACC 403-21 Federal Taxation I (3)

Anthropology and Sociology

8:00 a.m. - 12:00 Noon

- ANT 344-21 Magic, Religion, and Witchcraft (3)
 SOC 200-21 Introduction to Sociology (3)*

6:00 - 9:30 p.m.

- SOC 200-22 Introduction to Sociology (3)*
 Monday through Thursday

Art

8:00 a.m. - 12:00 Noon

- ARH 101-21 Learning to Look: Fine Arts, Art (3)*
 ART 105-21 Art Workshop (3)*

5:00 - 9:00 p.m.

- ART 231-21 Ceramics I: Basic Techniques (3)
 Monday through Thursday
 ART 232-21 Ceramics II: Intermediate Techniques (3) Monday through Thursday
 ART 331-21 Ceramics III: Advanced Techniques (3) Monday through Thursday
 ART 332-21 Ceramics: Studio Problems (3)
 Monday through Thursday
 ART 335-21 Ceramics: Independent Projects (3) Monday through Thursday

Astronomy

See Geology and Astronomy

Biology

8:00 a.m. - 12:30 p.m.

- BIO 100-21 Basic Biological Science (3)*
 Laboratory in C212
 BIO 209-21 Human Anatomy (4) Laboratory in C110, Monday through Thursday, 1:00-3:00 p.m.
 BIO 378-21 Ornithology (3)

Business Administration

8:00 a.m. - 12:00 Noon

- MGT 301-21 Principles of Management (3)
 MGT 302-21 Human Resources Administration (3)
 MGT 405-21 Business Policy and Strategy (3)
 W
 MKT 301-21 Principles of Marketing (3)
 MKT 321-21 Salesmanship (3)
 MKT 327-21 Marketing Management (3)

6:00 - 9:45 p.m.

- BLA 201-21 American Legal Systems (3) Monday through Thursday

Chemistry

8:00 a.m. - 9:00 a.m.

- CHE 321-21 Analytical Chemistry I (2) June 3-July 12

8:00 - 10:00 a.m.

- CHE 102-21 Concepts of Chemistry (3)
 Laboratory, 10:00 a.m. - 12:00 Noon
 CHE 103-21 General Chemistry I (3) June 3-July 5

8:00 - 10:30 a.m.

- CHE 231-21 Organic Chemistry I (4) June 4-July 5

9:00 - 11:00 a.m.

- CHE 230-21 Introduction to Organic and Biological Chemistry (3) June 3-July 5

10:00 a.m. - 12:00 Noon

- CRL 102-21 Concepts of Chemistry Laboratory (0) Must also take CHE 102

10:00 a.m. - 1:00 p.m.

- CRL 321-21 Analytical Chemistry I Laboratory (3) June 3-July 12

11:00 a.m. - 3:00 p.m.

- CRL 232-21 Experimental Organic Chemistry I (Laboratory) (2) Monday through Thursday, June 3-28

1:00 - 5:00 p.m.

- CRL 103-21 Experimental General Chemistry I (Laboratory) (2) Tuesday through Thursday, June 3-July 5

TBA

- CHE 410-21 Advanced Independent Study or Chemical Research (3) M,P
 CHE 410-22 Advanced Independent Study or Chemical Research (6) M,P
 CHE 450-21 Internship in Chemistry (3) M,P
 CHE 450-22 Internship in Chemistry (5) M,P

Childhood Studies and Reading

8:00 a.m. - 12:00 Noon

- EDE 332-21 Teaching Social Studies in the Elementary School (3)

6:00 - 9:30 p.m.

- ECE 405-21 Administration and Supervision of Early Childhood Programs (3) Monday through Thursday
 EDE 422-21 Seminar in Reading (3) Monday through Thursday. This course is required for a minor in reading or reading concentration. Can be taken as elective with permission of instruction—Dr. Carlos Ziegler.

Communicative Disorders

8:00 a.m. - 12:00 Noon

- SPP 101-21 Introduction to Communicative Disorders (3) This course is required for incoming transfer students. Without this course, graduation can be delayed by up to one yer.

Computer Science

See Mathematical Sciences

Counselor, Secondary, and Professional Education

8:00 a.m. - 12:00 Noon

- EDF 100-21 School and Society (3)
 EDP 250-21 Educational Psychology (3)
 EDP 351-21 Evaluation and Measurement (3)

6:00 - 9:30 p.m.

- EDF 498-21 Workshop in Educational Foundations: Communicative Skills for Teachers (3) See workshop description

Criminal Justice

8:00 a.m. - 12:00 Noon

- CRJ 220-21 Corrections (3)
 CRJ 312-21 White Collar Crime (3)

TBA

- CRJ 490-21 Practicum (3) W,M First three weeks of 12-week internship
 CRJ 490-22 Practicum (3) W,M First three weeks of 12-week internship
 CRJ 490-23 Practicum (3) W,M First weeks of 12-week internship
 CRJ 490-24 Practicum (3) W,M First three weeks of 12-week internship
 CRJ 490-25 Practicum (3) W,M First three weeks of 12-week internship
 CRJ 490-26 Practicum (3) W,M First three weeks of 12-week internship

Economics

8:00 a.m. - 12:00 Noon

- BUS 400-21 Business Internship (3)
 ECO 101-21 Principles of Economics-Survey (3)
 ECO 131-21 Principle of Economics I (Micro) (3)
 ECO 132-21 Principles of Economics II (Macro) (3)
 FIN 325-21 Corporation Finance (3)

6:00 - 9:30 p.m.

- ECO 131-22 Principles of Economics I (Micro) (3) Monday through Thursday

English

8:00 a.m. - 12:00 Noon

- ENG 000-21 Basic Writing (3)*
 ENG 120-21 Effective Writing I (3)*
 LIT 165-21 Introduction to Literature (3)*,W

6:00 - 9:45 p.m.

- ENG 120-22 Effective Writing I (3)* Monday through Thursday
 LIT 165-22 Introduction to Literature (3)*,W Monday through Thursday

Foreign Languages

8:00 - 9:45 a.m.

- FRE 101-21 Elementary French I (3) June 3-July 5

SPA 101-21 Elementary Spanish I (3) June 3-July 5

9:45 - 11:30 a.m.

FRE 201-21 Intermediate French I (3) June 3-July 5

11:00 a.m. - 12:45 p.m.

SPA 201-21 Intermediate Spanish I (3) June 3-July 5

TBA

Classical Languages Majors Program (3-6) See workshop description

French Majors Program (3-6) See workshop description

German Majors Program (3-6) See workshop description

Russian Majors Program (3-6) See workshop description

Self-Instructional Language Program-Chinese, Japanese, etc. (3-6) See workshop description
Spanish Majors Program (3-6) See workshop description

Geography

6:00 - 10:00 p.m.

GEO 101-21 World Geography (3)

TBA

GEO 415-21 Internship in Geography and Planning (3)

Geology and Astronomy

6:00-9:30 p.m.

ESS 101-21 Introduction to Geology (3)*
Monday through Thursday

ESS 111-21 General Astronomy (3)* Monday through Thursday

ESS 230-21 Introduction to Oceanography (3)
Monday through Thursday

TBA

ESS 460-21 Internship (3) P Approval of chairperson required

ESS 480-21 Special Problems (1) P Approval of chairperson required

ESS 480-22 Special Problems (2) P Approval of chairperson required

ESS 480-23 Special Problems (3) P Approval of chairperson required

Health

9:00 a.m. - 12:00 Noon

HEA 204-21 First Aid for Health Professionals (3)

6:00-9:30 p.m.

HEA 100-21 Dimensions of Wellness (3)

HEA 410-21 Mental Health (3)

TBA

HEA 421-21 Field Experience Public Health (3) M

HEA 456-21 Environmental Health Internship (3) M

HEA 456-22 Environmental Health Internship (3) M

History

8:00 a.m. - 12:00 Noon

HIS 100-21 Mainstreams in History (3)*

Instructional Media

8:00 a.m. - 12:00 Noon

EDM 300-21 Introduction to Instructional Communication (3)

EDM 405-21 Theory of Motion Picture Production (3)

Management

See Business Administration

Marketing

See Business Administration

Mathematical Sciences

8:00 a.m. - 12:00 Noon

CSC 101-21 Introduction to Computers (Literacy) (3)*

MAT 000-21 Fundamentals of Algebra (3)

MAT 101-21 Mathematics for Elementary Teachers I (3)

MAT 103-21 Introduction to Mathematics (3)*

MAT 105-21 College Algebra and Trigonometry (3)

MAT 107-21 Calculus for Business I (3)

MAT 141-21 Calculus I (3)

MAT 351-21 Teaching Mathematics in Elementary Schools I (3)

8:00 - 9:40 a.m. and 10:30 a.m. - 12:10 p.m.

MAT 161-21 Applied Calculus I (4)

6:00 - 9:45 p.m.

CSC 101-22 Introduction to Computers (Literacy) (3)* Monday through Thursday

CSC 350-21 Computers in Education (3) Monday through Thursday

TBA

CSC 300-21 Cooperative Programming (4) Permission of Prof. Edelman

Music

Music History

8:00 a.m. - 12:00 Noon

MHL 221-21 Music History I (3)

MHL 222-21 Music History II (3)

Music Theory and Composition

9:00 a.m. - 5:00 p.m.

MTC 416-21 Jazz Practices (2) June 17-21. Special fee. Register through workshop director only. Do not use regular registration procedure or permit-to-register cards. See workshop description

MTC 416-22 Jazz Practices (3) June 17-21. Special fee. Register through workshop director only. Do not use regular registration procedure or permit-to-register cards. See workshop description

Philosophy

8:00 a.m. - 12:00 Noon

PHI 101-21 Introduction to Philosophy (3)*

PHI 180-21 Introduction to Ethics (3)*

6:00 - 9:30 p.m.

PHI 101-22 Introduction to Philosophy (3)* Monday through Thursday

Physical Education

8:00 a.m. - 12:00 Noon and

1:00 - 2:00 p.m.

Athletic Training Courses meet June 3-August 2, 1985. Contact Professor Phillip B. Donley, (215) 436-2969, for further information.

PED 410-21 Therapeutic Modalities for Athletic Training (3) P

PED 410-22 Therapeutic Modalities for Athletic Training (3) P

PED 411-21 Therapeutic Exercise for Athletic Training (3) P

PED 411-22 Therapeutic Exercise for Athletic Training (3) P

PED 412-21 Pathology for Athletic Training (3) P

PED 412-22 Pathology for Athletic Training (3) P

PED 413-21 Athletic Injury/Illness Evaluation (2) P

PED 413-22 Athletic Injury/Illness Evaluation (2) P

PED 413-23 Athletic Injury/Illness Evaluation (2) P

PEL 410-21 Therapeutic Modalities for Athletic Training Laboratory (1) P

PEL 410-22 Therapeutic Modalities for Athletic Training Laboratory (1) P

PEL 410-23 Therapeutic Modalities for Athletic Training Laboratory (1) P

12:30 - 2:30 p.m.

PEA 106-21 Canoeing (1)

PEA 128-21 Tennis (1)

6:00 - 8:00 p.m.

PEA 112-21 Horsemanship (1) \$

6:00 - 9:30 p.m.

PED 353-21 Organization and Administration of Physical Education, Health and Athletics (3) Monday through Thursday

PED 361-21 Kinesiology (3)

PED 430-21 Planning Facilities for Athletics, Physical Education and Recreation (3) Monday through Thursday

PED 449-21 Learning on the Move (3) Monday through Thursday

PED 450-21 High School Driver Education Program Management (3)

TBA

PED 491-21 Internship (3) P See Professor Jones

Physics

8:00 a.m. - 12:00 Noon

PHY 100-21 Elements of Physical Science (3)*

Political Science

8:00 a.m. - 12:00 Noon

PSC 100-21 American Government and Politics (3)

TBA

PAD 412-21 Internship in Public Administration (3)

PSC 412-21 Internship in Political Science (3)

Psychology

8:00 a.m. - 12:00 Noon

PSY 100-21 Introduction to Psychology (3)*

PSY 354-21 Social Psychology (3)

7:00 - 10:15 p.m.

PSY 490-21 Topical Seminar in Psychology: Theory and Practice of Psychodrama (3) Tuesday through Thursday, first five-week session, June 4-July 3. (Open to graduate students.)

Sociology

See Anthropology and Sociology

Special Education

8:00 a.m. - 12:00 Noon

EDA 101-21 Psychology of the Mentally Handicapped (3)

EDA 350-21 Life Curriculum and Methods: Handicapped Learners (3)

Speech Communication and Theatre

8:00 a.m. - 12:00 Noon

SPC 101-21 Speech Fundamentals: Interpersonal Communications (3)

SPC 403-21 Persuasion (3) W

6:30 - 10:00 p.m.

SPC 117-21 Introduction to Radio-TV-Film (3) Monday through Thursday

TBA

SPC 399-21 Directed Studies in Speech Communications (3)

SPC 400-21 Internship in Speech Communication (3)

THA 399-21 Directed Studies in Theatre (3)

THA 400-21 Professional Apprenticeship (3)

Regular Session Offerings

Monday, June 24
through
Friday, August 2
Holiday—Thursday and Friday,
July 4 and 5

Unless noted otherwise, classes meet Monday through Friday.

Key * Meets General Education Requirements
 W Writing Emphasis
 \$ Additional Fee Required
 M Majors Only
 P Permission of Instructor

Accounting

8:00 - 9:30 a.m.

ACC 201-31 Principles of Accounting I (3)

ACC 301-31 Intermediate Accounting I (3)

ACC 405-31 Advanced Accounting (3)

9:30 - 11:00 a.m.

ACC 202-31 Principles of Accounting II (3)

ACC 302-31 Intermediate Accounting II (3)

6:00 - 9:00 p.m.

ACC 201-32 Principles of Accounting I (3)
Monday and Wednesday

ACC 202-32 Principles of Accounting II (3)
Tuesday and Thursday

ACC 401-31 Auditing (3) Tuesday and Thursday

Anthropology and Sociology

8:00 - 9:30 a.m.

ANT 102-31 Introduction to Anthropology:
Cultural (3)*,W

SOC 240-31 Sociology of the Family (3)*

9:30 - 11:00 a.m.

ANT 103-31 Introduction to Anthropology:
Archaeology (3)*

SOC 200-31 Introduction to Sociology (3)*

SOC 353-31 Juvenile Delinquency (3)

6:30 - 9:45 p.m.

SOC 200-32 Introduction to Sociology (3)*
Tuesday and Thursday

SOC 302-31 Sociology of Everyday Life (3)
Monday and Wednesday

TBA

ANT 113-31 Archaeological Field Techniques
(3)

ANT 360-31 Historical Archaeology (3)

ANT 410-31 Independent Studies in An-
thropology: Archaeological
Research (3)

Art

8:00—9:30 a.m.

ARH 101-31 Learning to Look: Fine Arts, Art
(3)*

9:30—11:00 a.m.

ART 106-31 Beginning Drawing (3)*

ART 206-31 Intermediate Drawing (3)*

ART 306-31 Drawing III: Life Drawing (3)*

11:00 a.m.—12:30 p.m.

ART 216-31 Beginning Painting (3)*

ART 217-31 Intermediate Painting (3)

- ART 226-31 Water Color I (3)
 ART 227-31 Water Color II (3)
 ART 316-31 Advanced Painting (3)
 ART 317-31 Painting: Studio Problems (3)
 ART 318-31 Painting from Landscape: Independent Project (3)
 ART 319-31 Painting from Masters: Independent Project (3)

5:00 - 9:00 p.m.

- ART 231-31 Ceramics I: Basic Techniques (3)
 Monday through Thursday, June 24-July 11
 ART 232-31 Ceramics II: Intermediate Techniques (3) Monday through Thursday, June 24-July 11
 ART 331-31 Ceramics III: Advanced Techniques (3) Monday through Thursday, June 24-July 11
 ART 332-31 Ceramics: Studio Problems (3)
 Monday through Thursday, June 24-July 11
 ART 335-31 Ceramics: Independent Projects (3) Monday through Thursday, June 24-July 11

Astronomy

See Geology and Astronomy

Biology

8:00 - 9:00 a.m.

- BIO 110-31 General Biology (4)* Laboratory in C209, Tuesday and Thursday, 1:00 - 4:00 p.m.
 BIO 172-31 Field Ecology and Natural History (3)* Laboratory Wednesday, 1:00 - 4:00 p.m.
 BIO 309-31 Human Physiology (4) Must take a BIL 309

1:00 - 3:00 p.m.

- BIL 309-31 Human Physiology Laboratory (0) Laboratory Monday and Wednesday
 BIL 309-32 Human Physiology Laboratory (0) Laboratory Tuesday and Thursday

Business Administration

8:00 - 9:30 a.m.

- BLA 201-31 American Legal Systems (3)

- MGT 301-31 Principles of Management (3)
 MKT 327-31 Marketing Management (3)

9:30 - 11:00 a.m.

- MGT 405-31 Business Policy and Strategy (3) W
 MKT 301-31 Principles of Marketing (3)

11:00 a.m. - 12:30 p.m.

- MGT 303-31 Production and Operations Management (3)
 MKT 408-31 Marketing Research (3)

6:00 - 9:45 p.m.

- MGT 101-31 Introduction to Business (3) Monday and Wednesday
 MGT 402-31 Organization Theory and Behavior (3) W Tuesday and Thursday
 MGT 405-32 Business Policy and Strategy (3) W Tuesday and Thursday
 MKT 327-32 Marketing Management (3) Monday and Wednesday

Chemistry

8:00 - 10:00 a.m.

- CHE 100-31 Essentials of Chemistry (4)* Includes CRL 100
 CHE 104-31 General Chemistry II (3) July 8-August 9

8:00 - 10:30 a.m.

- CHE 232-31 Organic Chemistry II (3) July 8-August 2

11:00 a.m. - 3:00 p.m.

- CRL 104-31 Experimental General Chemistry II (Laboratory) (2) Tuesday through Thursday, July 8-August 9
 CRL 233-31 Experimental Organic Chemistry II (Laboratory) (2) Monday through Thursday, July 8-August 2

5:00 - 7:30 p.m.

- CHE 404-31 Foundations of Nutrition (3) Monday through Thursday, July 8-August 9

TBA

- CHE 410-31 Advanced Independent Study or Chemical Research (3) M,P

- CHE 410-32 Advanced Independent Study or Chemical Research (6) M,P
 CHE 450-31 Internship in Chemistry (3) M,P
 CHE 450-32 Internship in Chemistry (5) M,P

Childhood Studies and Reading

8:00 - 9:30 a.m.

- EDE 311-31 Introduction to Reading Instruction (3)
 EDE 406-31 Classroom Management (3)

8:30 a.m. - 12:00 Noon

- EDE 312-31 Reading Instruction and Practicum (6)

Communicative Disorders

8:00 - 9:30 a.m.

- SPP 107-31 Speech and Language Development (3) W This course is required for incoming transfer students. Without this course, graduation can be delayed by up to one year.

9:30 - 11:00 a.m.

- SPP 106-31 Introduction to Phonetics (3) This course is required for incoming transfer students. Without this course, graduation can be delayed by up to one year.

TBA

- SPP 351-31 Clinical Practicum (3)
 SPP 352-31 Advanced Clinical Practicum (3)

Computer Science

See Mathematical Sciences

Counselor, Secondary, and Professional Education

8:00 - 9:30 a.m.

- EDP 250-31 Educational Psychology (3)

9:30 - 11:00 a.m.

- EDP 351-31 Evaluation and Measurement (3)

11:00 a.m. - 12:30 p.m.

- EDF 100-31 School and Society (3)
 EDP 469-31 Adolescent Development (3) W

12:30 - 4:00 p.m.

- EDC 462-31 Essentials of the Helping Relationship (3) June 24 then Tuesday through Thursday July 8-August 2

Criminal Justice

8:00 - 9:30 a.m.

- CRJ 420-31 Criminal Investigations (3)

9:30 - 11:00 a.m.

- CRJ 435-31 Assessment of the Offender (3)

TBA

- CRJ 490-31 Practicum (6) W,M Fourth through ninth week of 12-week internship
 CRJ 490-32 Practicum (6) W,M Fourth through ninth week of 12-week internship
 CRJ 490-33 Practicum (6) W,M Fourth through ninth week of 12-week internship
 CRJ 490-34 Practicum (6) W,M Fourth through ninth week of 12-week internship
 CRJ 490-35 Practicum (6) W,M Fourth through ninth week of 12-week internship
 CRJ 490-36 Practicum (6) W,M Fourth through ninth week of 12-week internship

Economics

8:00 - 9:30 a.m.

- ECO 101-31 Principles of Economics-Survey (3)
 ECO 132-31 Principles of Economics II (Macro) (3)

9:30 - 11:00 a.m.

- ECO 335-31 Money and Banking (3)

11:00 a.m. - 12:30 p.m.

- ECO 131-31 Principles of Economics I (Micro) (3)
 ECO 251-31 Quantitative Business Analysis I (3)

6:00 - 9:30 p.m.

- ECO 131-32 Principles of Economics I (Micro) (3) Tuesday and Thursday
 ECO 132-32 Principles of Economics II (Marco) (3) Monday and Wednesday

- FIN 325-31 Corporation Finance (3) Monday and Wednesday
 FIN 344-31 Investments (3) Tuesday and Thursday

TBA

- BUS 400-31 Business Internship (3)
 BUS 400-32 Business Internship (6)

English

8:00—9:30 a.m.

- ENG 000-31 Basic Writing (3)*
 ENG 120-31 Effective Writing I (3)*
 ENG 121-31 Effective Writing II (3)*

9:30—11:00 a.m.

- ENG 120-32 Effective Writing I (3)*
 JRN 225-31 Newswriting (3) W
 LIT 165-31 Introduction to Literature (3)*, W

11:00 a.m.—12:30 p.m.

- ENG 121-32 Effective Writing II (3)*
 ENG 268-31 Business Communication (3) W

6:00—9:45 p.m.

- ENG 120-33 Effective Writing I (3)* Tuesday and Thursday
 ENG 121-33 Effective Writing II (3)* Tuesday and Thursday
 ENG 268-32 Business Communication (3) W Monday and Wednesday
 LIT 165-32 Introduction to Literature (3) ; W Monday and Wednesday

Foreign Languages

8:00—9:45 a.m.

- FRE 202-31 Intermediate French II (3) July 8—August 9
 GER 102-31 Elementary German II (3)
 SPA 102-31 Elementary Spanish II (3) July 8—August 9

9:45—11:30 a.m.

- GER 101-31 Elementary German I (3)

11:00 a.m.—12:45 p.m.

- FRE 102-31 Elementary French II (3) July 8—August 9
 GER 201-31 Intermediate German I (3)
 GER 202-31 Intermediate German II (3)
 SPA 202-31 Intermediate Spanish II (3) July 8—August 9

TBA

Classical Languages Majors Program (3-6) See workshop description

French Majors Program (3-6) See workshop description

German Majors Program (3-6) See workshop description

Russian Majors Program (3-6) See workshop description

Self-Instructional Language Program—Chinese, Japanese, etc. (3-6) See workshop description

Spanish Majors Program (3-6) See workshop description

Geography

9:30—11:00 a.m.

- GEO 101-31 World Geography (3)

6:00—10:00 p.m.

- GEO 101-32 World Geography (3) Tuesday and Thursday
 GEO 210-31 Population Problems (3) W Tuesday and Thursday
 GEO 302-31 Latin America (3) W Also a Cultures Clusters course. Monday and Wednesday

TBA

- GEO 415-31 Internship in Geography and Planning (6)

Geology and Astronomy

8:00—9:30 a.m.

- ESS 101-31 Introduction to Geology (3)*

9:30—11:00 a.m.

- ESS 101-32 Introduction to Geology (3)*

11:00 a.m.—12:30 p.m.

- ESS 111-31 General Astronomy (3)*

6:00—9:30 p.m.

- ESS 101-33 Introduction to Geology (3)* Monday and Wednesday
 ESS 111-32 General Astronomy (3)* Tuesday and Thursday
 ESS 160-31 Nautical Astronomy (Celestial Navigation) (3) Monday and

Wednesday

TBA

- ESS 220-31 History of the Earth Sciences (3)
P July 27-August 17. See Dr. Ehleiter or Professor Gougher. See workshop description
- ESS 460-31 Internship (3) P Approval of chairperson required
- ESS 460-32 Internship (6) P Approval of chairperson required
- ESS 480-31 Special Problems (1) P Approval of chairperson required
- ESS 480-32 Special Problems (2) P Approval of chairperson required
- ESS 480-33 Special Problems (3) P Approval of chairperson required

Health**8:30 a.m. - 4:30 p.m.**

- HEA 435-31 Health Workshop: Human Sexuality (3) July 10-16
- HEA 435-32 Health Workshop: Human Sexuality (3) July 18-24

9:30 - 11:00 a.m.

- HEA 301-31 Health for the Elementary Grades (3)
- HEA 303-31 Nutrition-Weight Control (3)
- HEA 341-31 Chronic and Communicable Diseases (3)

TBA

- HEA 260-31 Cardiopulmonary Diseases (3) Offered at Bryn Mawr Hospital
- HEA 266-31 Pharmacology (2) Offered at Bryn Mawr Hospital
- HEA 267-31 Clinical Correlation Symposium (2) Offered at Bryn Mawr Hospital
- HEA 308-31 Field Experience in Health Education (1)
- HEA 421-31 Field Experience in Public Health (6) M
- HEA 456-31 Environmental Health Internship (6) M
- HEA 456-32 Environmental Health Internship (6) M

History**8:00 - 9:30 a.m.**

- HIS 100-31 Mainstreams in History (3)*

9:30 - 11:00 a.m.

- HIS 100-32 Mainstreams in History (3)*, W
- HIS 152-31 History of United States II (3)

11:00 a.m. - 12:30 p.m.

- HIS 166-31 20th Century America (3)

6:00 - 9:30 p.m.

- HIS 100-33 Mainstreams in History (3)* Monday and Wednesday

Instructional Media**8:00 - 9:30 a.m.**

- EDM 425-31 Basic Photography (3)

9:30 - 11:00 a.m.

- EDM 300-31 Introduction to Instructional Communication (3)

11:00 a.m. - 12:30 p.m.

- EDM 433-31 Basic TV Production I (3)

Management

- See Business Administration

Marketing

- See Business Administration

Mathematical Sciences**8:00 - 9:30 a.m.**

- CSC 115-31 Introduction to Computer Programming (STR BASIC) (3)*
- CSC 141-31 Introduction to Computer Science (PASCAL) (3)
- MAT 000-31 Fundamentals of Algebra (3)
- MAT 101-31 Mathematics for Elementary Teachers I (3)
- MAT 103-31 Introduction to Mathematics (3)*
- MAT 105-31 College Algebra and Trigonometry (3)
- MAT 107-31 Calculus for Business I (3)
- MAT 108-31 Calculus for Business II (3)
- MAT 354-31 Techniques of Teaching Secondary School Mathematics (3)

9:30 - 11:00 a.m.

- CSC 101-31 Introduction to Computers (Literacy) (3)*
- CSC 141-32 Introduction to Computer Science (PASCAL) (3)
- CSC 350-31 Computers in Education (3)
- MAT 000-32 Fundamentals of Algebra (3)

MAT 102-31 Mathematics for Elementary Teachers II (3)

MAT 105-32 College Algebra and Trigonometry (3)

MAT 108-32 Calculus for Business II (3)

MAT 121-31 Statistics (3)

11:00 a.m. - 12:30 p.m.

CSC 141-33 Introduction to Computer Science (PASCAL) (3)

MAT 211-31 Linear Algebra (3)

MAT 221-31 Applied Statistics (3)

MAT 351-31 Teaching Mathematics in Elementary Schools I (3)

11:00 a.m. - 12:45 p.m.

MAT 162-31 Applied Calculus II (4)

11:00 a.m. - 1:05 p.m.

MAT 142-31 Calculus II (5)

5:30 - 10:00 p.m.

CSC 242-31 Computer Organization (3) Tuesday and Thursday

6:00 - 9:30 p.m.

CSC 101-32 Introduction to Computers (Literacy) (3)* Monday and Wednesday

CSC 115-32 Introduction to Computer Programming (STR BASIC) (3)* Tuesday and Thursday

CSC 142-31 Applied Software (COBOL) (3) Monday and Wednesday

CSC 361-31 Simulation (3) Monday and Wednesday

CSC 371-31 Computer Graphics (Micro oriented) (3) Tuesday and Thursday

TBA

CSC 200-31 Cooperative Operations (3) P Permission of Dr. Fabrey

CSC 400-31 Cooperative Speciality (9) P Permission of Dr. Fabrey

CSC 490-31 Independent Project in Computer Science (1) P Permission of Dr. Weaver

CSC 490-32 Independent Project in Computer Science (2) P Permission of Dr. Weaver

CSC 490-33 Independent Project in Computer Science (3) P Permission of Dr.

Weaver

CSC 490-34 Independent Project in Computer Science (4) P Permission of Dr. Weaver

CSC 490-35 Independent Project in Computer Science (5) P Permission of Dr. Weaver

CSC 499-31 Independent Study in Computer Science (1) P Permission of Dr. Weaver

CSC 499-32 Independent Study in Computer Science (2) P Permission of Dr. Weaver

CSC 499-33 Independent Study in Computer Science (3) P Permission of Dr. Weaver

Music

Instrumental Music

9:30 - 11:00 a.m.

AIC 312-31 Instrumental Conducting II (2) July 1-26

11:00 a.m. - 12:30 p.m.

AMC 311-31 Master Class (Brass) (1) July 15-26

12:30 - 2:00 p.m.

AEO 131-31 Chamber Orchestra (1) P July 1-26

2:00 - 3:30 p.m.

AEB 121-31 Concert Band (1) July 1-26

TBA

Private Instrumental Lessons

Prefixes: BAR, BAS, BSN, CLT, FLU, FRH, GTR, HRP, OBO, PER, SAX, TBA, TPT, TRB, VCL, VLA, VLN

101-402 Minor Lesson (1)

111-412 Major Lesson (2)

141-442 Advanced Lesson (3)

Keyboard Music

9:00 a.m. - 4:30 p.m.

PIA 429-31 Special Subjects Seminar: Teaching Materials for the Intermediate Level (3) S July 15-19. Register through workshop director

By Appointment

PIA 101-402 Piano Minor Private Lesson (1) S

PIA 111-412 Piano Major Private Lesson (2) S

Music History**8:00 - 11:00 a.m.**

MHL 322-31 History of Jazz (3) June 24-July 12

MHL 479-31 Seminar in Music History I (3) July 15-August 2

11:00 a.m. - 12:30 p.m.

MHL 121-31 Fine Arts Music (3)*

MHL 461-31 Beethoven and His Works (3)

TBA

MHL 480-31 Seminar in Music History II: Computer Technology for Musicians (Workshop) (3) July 22-26. See workshop description

Music Theory and Composition**8:00 - 9:30 a.m.**

MTC 450-31 Acoustics of Music (3)

9:30 - 11:00 a.m.

Transfer, exchange, or other students wishing to take upper level theory courses without first receiving credit for MTC 112 must obtain permission of the Theory/Composition department.

MTC 112-31 Theory of Music I (3)

MTC 113-31 Theory of Music II (3)

MTC 212-31 Theory of Music III (3)

MTC 213-31 Theory of Music IV (3)

11:00 a.m. - 12:30 p.m.

Transfer, exchange, or other students wishing to take upper level Aural Activities without first receiving credit for MTC 114 must obtain permission of the Theory/Composition department.

MTC 114-31 Aural Activities I (2)

MTC 115-31 Aural Activities II (2)

MTC 214-31 Aural Activities III (2)

MTC 215-31 Aural Activities IV (2)

Vocal and Choral Music**12:30 - 2:00 p.m.**

CHO 311-31 Masterworks Chorus (1) July 15-August 2

TBA

VOC 429-31 Special Subjects Seminar: Chamber Choir European Concert Tour (3) \$,P June 24-July 14. Audition

VOC 429-32 Special Subjects Seminar:

Chamber Choir European Concert Tour (2) \$,P June 24-July 14. Audition

VOI 101-402 Voice Minor Private Lesson (1) \$

VOI 111-412 Voice Major Private Lesson (2) \$

Nursing**6:00 - 9:30 p.m.**

NSG 214-31 Proseminar in Nursing Theories and Concepts (3) R.N. students only. Tuesday and Thursday

Philosophy**8:00 - 9:30 a.m.**

PHI 101-31 Introduction to Philosophy (3)*

9:30 - 11:00 a.m.

PHI 101-32 Introduction to Philosophy (3)*

6:00 - 9:30 p.m.

PHI 101-33 Introduction to Philosophy (3)* Monday and Wednesday

PHI 101-34 Introduction to Philosophy (3)* Tuesday and Thursday

Physical Education**8:00 - 9:30 a.m.**

PED 356-31 Critical Problems within the Highway Transportation System (3) Monday through Thursday

9:30 - 11:00 a.m.

PED 456-31 Introduction to the Driving Tasks (3) Monday through Thursday

11:00 a.m. - 12:30 p.m.

PEA 128-31 Tennis (1)

PED 211-31 Hockey (.5) 1st half

PED 213-31 Lacrosse (.5) 2nd half

1:00 - 2:30 p.m.

PED 370-31 Camp Counseling (3) P See Mr. Lauletta

6:00 - 8:00 p.m.

PEA 112-31 Horsemanship (1) \$

PED 434-31 Organization and Management of Adult Fitness Programs-Clinic/Seminar (3) Monday through Thursday

TBA

PED 491-31 Internship (6) P See Professor Jones

Physics

8:00 a.m. - 12:00 Noon

- PHY 103-31 General Physics I (4)* June 24 through July 19
 PHY 104-31 General Physics II (4)* July 22 through August 16

9:30 - 11:00 a.m.

- PHY 100-31 Elements of Physical Science (3)*

Political Science

9:30 - 11:00 a.m.

- PSC 100-31 American Government and Politics (3)

6:00 - 10:00 p.m.

- PAD 361-31 State and Local Government (3) Tuesday and Thursday
 PSC 100-32 American Government and Politics (3) Monday and Wednesday

TBA

- PAD 412-31 Internship in Public Administration (6)
 PSC 401-31 Senior Project in Political Science (3)
 PSC 412-31 Internship in Political Science (6)

Psychology

8:00 - 9:30 a.m.

- PSY 100-31 Introduction to Psychology (3) *
 PSY 464-31 Physiological Psychology (3)

9:30 - 11:00 a.m.

- PSY 100-32 Introduction to Psychology (3)*

6:00 - 9:30 p.m.

- PSY 100-33 Introduction to Psychology (3)* Monday and Wednesday
 PSY 357-31 Theories of Personality (3) Monday and Wednesday
 PSY 375-31 Abnormal Psychology (3) Tuesday and Thursday

7:00 - 10:00 p.m.

- PSY 445-31 Organizational Development (3) Tuesday through Thursday, July 9-August 8

TBA

- PSY 441-31 Field Experience in Psychology I (3)

- PSY 442-31 Field Experience in Psychology II (3)

Sociology

See Anthropology and Sociology

Special Education

12:30 - 2:30 p.m.

- EDA 301-31 Field Experience and Seminar: Mentally Handicapped (3) Tuesday and Thursday. Additional field work required
 EDA 302-31 Field Experience and Seminar: Physically Handicapped (3) Tuesday and Thursday. Additional field work required

Speech Communication and Theatre

8:00 - 9:30 a.m.

- SPC 101-31 Speech Fundamentals: Interpersonal Communications (3)

9:30 - 11:00 a.m.

- SPC 317-31 Directing and Producing the Dramatic TV Program (3)

11:00 a.m. - 12:30 p.m.

- SPC 250-31 Nonverbal Communication (3) W
 SPC 415-31 General Semantics (3) W

TBA

- SPC 399-31 Directed Studies in Speech Communications (3)
 SPC 400-31 Internship in Speech Communication (3)
 SPC 400-32 Internship in Speech Communication (6)
 THA 399-31 Directed Studies in Theatre (3)
 THA 400-31 Professional Apprenticeship (3)

Post Session Offerings

Monday, August 5
through
Friday, August 23

Unless noted otherwise, classes meet Monday through Friday.
Classes which meet from 8:00 a.m. to 12:00 Noon have a break
from 9:30 to 10:30 a.m.

Key * Meets General Education Requirements
 W Writing Emphasis
 \$ Additional Fee Required
 M Majors Only
 P Permission of Instructor

Accounting

8:00 a.m. - 12:00 Noon

ACC 202-41 Principles of Accounting II (3)

Anthropology and Sociology

8:00 a.m. - 12:00 Noon

ANT 102-41 Introduction to Anthropology:
Cultural (3)*

SOC 200-41 Introduction to Sociology (3)*

SOC 240-41 Sociology of the Family (3)*

6:30 - 9:45 p.m.

SOC 200-42 Introduction to Sociology (3)*
Monday through Thursday

Art

8:00 a.m. - 12:00 Noon

ARH 101-41 Learning to Look: Fine Arts, Art
(3)*

Astronomy

See Geology and Astronomy

Biology

8:00 a.m. - 12:30 p.m.

BIO 100-41 Basic Biological Science (3)*
Laboratory in C212

Business Administration

8:00 a.m. - 12:00 Noon

BLA 201-41 American Legal Systems (3)

MGT 301-41 Principles of Management (3)

MGT 408-41 Business and Society (3) W

MKT 301-41 Principles of Marketing (3)

MKT 320-41 Managing Sales (3)

Chemistry

TBA

CHE 410-41 Advanced Independent Study or
Chemical Research (3) M,P

CHE 410-42 Advanced Independent Study or
Chemical Research (6) M,P

CHE 450-41 Internship in Chemistry (3) M,P

CHE 450-42 Internship in Chemistry (5) M,P

Childhood Studies and Reading

8:00 a.m. - 12:00 Noon

EDE 481-41 Constructing Activity-Oriented
Teaching Materials (3) See
workshop description

Computer Science

See Mathematical Sciences

Counselor, Secondary, and Professional Education

8:00 a.m. - 12:00 Noon

EDP 351-41 Evaluation and Measurement (3)

Criminal Justice

TBA

CRJ 490-41 Practicum (3) W,M Last three
weeks of 12-week internship

CRJ 490-42 Practicum (3) W,M Last three
weeks of 12-week internship

CRJ 490-43 Practicum (3) W,M Last three
weeks of 12-week internship

CRJ 490-44 Practicum (3) W,M Last three
weeks of 12-week internship

CRJ 490-45 Practicum (3) W,M Last three
weeks of 12-week internship

CRJ 490-46 Practicum (3) W,M Last three
weeks of 12-week internship

Economics

8:00 a.m. - 12:00 Noon

BUS 400-41 Business Internship (3)

ECO 101-41 Principles of Economics-Survey
(3)

ECO 132-41 Principles of Economics II
(Macro) (3)

ECO 252-41 Quantitative Business Analysis II
(3)

English

8:00 a.m. - 12:00 Noon

ENG 120-41 Effective Writing I (3)*

LIT 165-41 Introduction to Literature (3)*,W

LIT 336-41 Shakespeare II (3)

6:00 - 9:45 p.m.

ENG 000-41 Basic Writing (3)* Monday
through Thursday

LIT 165-42 Introduction to Literature (3)*,W
Monday through Thursday

Geography

6:00 - 10:00 p.m.

GEO 101-41 World Geography (3) Monday
through Thursday

TBA

GEO 415-41 Internship in Geography and
Planning (3)

Geology and Astronomy

8:00 a.m. - 12:00 Noon

ESS 101-41 Introduction to Geology (3)*

ESS 111-41 General Astronomy (3)*

TBA

ESS 460-41 Internship (3) P Approval of
chairperson required

ESS 480-41 Special Problems (1) P Approval
of chairperson required

ESS 480-42 Special Problems (2) P Approval
of chairperson required

ESS 480-43 Special Problems (3) P Approval
of chairperson required

Health

8:30 - 11:30 a.m.

HEA 104-41 Human Sexuality (3)

TBA

HEA 261-41 Respiratory Therapy Seminar I (1)
Offered at Bryn Mawr Hospital

HEA 262-41 Clinical Practice III (1) Offered at
Bryn Mawr Hospital

HEA 268-41 Respiratory Therapy Seminar II
(1) Offered at Bryn Mawr Hospital

HEA 269-41 Clinical Practice V (1) Offered at
Bryn Mawr Hospital

HEA 421-41 Field Experience in Public Health
(3) M

HEA 456-41 Environmental Health Internship
(3) M

HEA 456-42 Environmental Health Internship
(3) M

History

8:00 a.m. - 12:00 Noon

HIS 100-41 Mainstreams in History (3)*

Instructional Media

8:00 a.m. - 12:00 Noon

EDM 434-41 Instructional TV Production II (3)

EDM 463-41 Field Study of Media Programs (3)

Management

See Business Administration

Marketing

See Business Administration

Mathematical Sciences

8:00 a.m. - 12:00 Noon

CSC 101-41 Introduction to Computers (Literacy) (3)*

MAT 000-41 Fundamentals of Algebra (3)

MAT 103-41 Introduction to Mathematics (3)*

MAT 105-41 College Algebra and Trigonometry (3)

6:00 - 10:00 p.m.

CSC 101-42 Introduction to Computers (Literacy) (3)

CSC 331-41 Operating Systems (3)

Philosophy

8:00 a.m. - 12:00 Noon

PHI 101-41 Introduction to Philosophy (3)*,W

Physical Education

8:00 - 11:30 a.m.

PED 352-41 Applied Physiology (3)

12:30 - 2:30 p.m.

PEA 128-41 Tennis (1)

6:00 - 8:00 p.m.

PEA 112-41 Horsemanship (1) \$

TBA

PED 372-41 Wilderness Adventure II: Cycle Touring Nova Scotia (2) \$,P See Professor Nye

PED 373-41 Wilderness Adventure III: Canoeing Canada (2) \$,P August 2-14. See Professor Remley

PED 473-41 Independent Study and Special Projects (1-3) P Permission of department and dean

PED 491-41 Internship (3) P See Professor Jones

Political Science

8:00 a.m. - 12:00 Noon

PSC 100-41 American Government and Politics (3)

6:00 - 10:00 p.m.

PAD 376-41 Government Budgeting (3) Monday through Thursday

TBA

PAD 412-41 Internship in Public Administration (3)

PSC 412-41 Internship in Political Science (3)

Sociology

See Anthropology and Sociology

Speech Communication and Theatre

TBA

SPC 399-41 Directed Studies in Speech Communications (3)

SPC 400-41 Internship in Speech Communication (3)

THA 399-41 Directed Studies in Theatre (3)

THA 400-41 Professional Apprenticeship (3)

Workshops

Childhood Studies and Reading

Constructing Activity-Oriented Teaching Materials

EDE 481 - 3 Credits

Post Session

August 5-23

A workshop experience for students interested in exploring the many facets of making activity-oriented learning materials for the classroom. Dr. Zimmerman will work with creative arts, creative drama, and puppetry for use with children. Professor Dunlap will provide experiences with construction of learning centers and enrichment and reinforcement materials for the academic areas. For more information, contact Dr. Connie Zimmerman, (215) 436-3323, or Mr. Scott Dunlap, (215) 436-2770, West Chester University, West Chester, PA, 19383.

Counselor, Secondary, and Professional Education

Workshop in Educational Foundations: Communicative Skills for Teachers

EDF 498 - 3 Credits

Pre Session

This workshop focuses on the teacher-to-student and the teacher-to-parent communicative relationships. An examination of classroom problems leads to a discussion of problem prevention. Strategies to be used in each participant's classroom will be emphasized. Strategies dealing with other communicative areas will be explored. For more information, contact Dr. Harry H. Deischer, West Chester University, West Chester, PA, 19383, telephone (215) 436-2958.

Foreign Languages

Self-Instructional Language Program

3-6 Credits

June-July

Conversational Chinese, Greek, Japanese, and Portuguese. During the summer, 1985, students may learn conversational languages depending on enrollment and staff at West Chester University. Students must register with Mr. Ronald L. Gougher, Chairman, Department of Foreign Languages, Main 109. For more information, contact Mr. Ronald L. Gougher, West Chester University, West Chester, PA, 19383, telephone (215) 436-2700.

Foreign Language Majors Programs

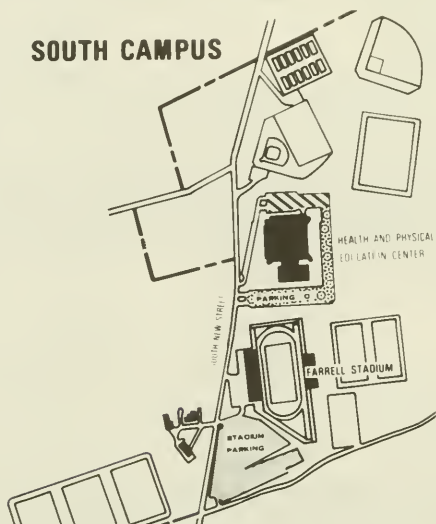
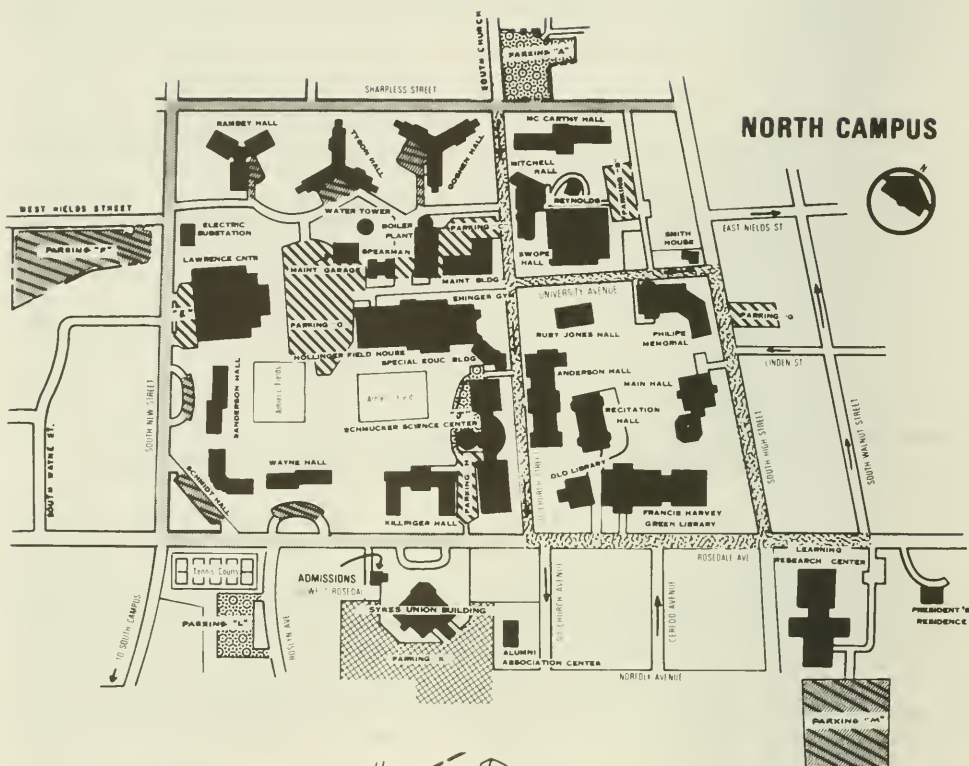
Students from other colleges and universities are welcome to apply for admission to any of the majors programs listed below. Students may begin any time that can be arranged during June and complete work in July. Time spent and credits earned will vary according to the need of students.

Classical Languages Majors Program

3-6 Credits

June-July

Students must register with Mr. John P. Rosso, Foreign Language Department, Main 108. For more information, contact Mr. John P. Rosso, West Chester University, West Chester, PA, 19383, telephone (215) 436-2465.



SUMMER SESSION CALENDAR

SESSION	DATES- Week Beginning	1	8	15	22	29	6	13	20	27	3	10	17	24	1	8	15	22	29	5	12	19	26
PRE	Mail Registration April 15-May 17																						
	In-Person Registration April 15-May 24									*													
	Session Dates June 3-June 21																						
	Mail Registration April 15-June 7																						
REGULAR	In-Person Registration April 15-June 14												*										
	Session Dates-June 24-Aug- ust 2-Holidays-July 4 and 5																						
	Mail Registration April 15-July 19																						
	In-Person Registration April 15-July 26																						
POST	Session Dates August 5-August 23																						

SUMMARY

PRE SESSION

Mail Registration Deadline-May 17
In-Person Registration Deadline-May 24
*Late Registration (\$15 Late Fee)-May 30

REGULAR SESSION

Mail Registration Deadline-June 7
In-Person Registration Deadline-June 14
*Late Registration (\$15 Late Fee)-June 20

POST SESSION

Mail Registration Deadline-July 19
In-Registration Deadline-July 26
*Late Registration (\$15 Late Fee)-August 1

KEY

☐ Scheduling and Payment Period

■ Sessions

*Late Registration (\$15 Late Fee)

West Chester University

West Chester, Pennsylvania ■ 19383

ADDRESS CORRECTION REQUESTED

Summer Session
'85

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